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UNIVERSITY OF ALBERTA

The Impact of Diploma Examinations on the
Teaching - Learning Process:
A Concept Map



by Janice L. Swanson

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
AND RESEARCH IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

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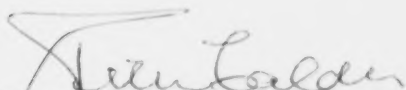
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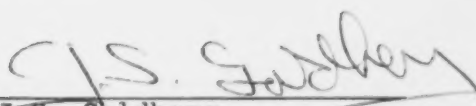
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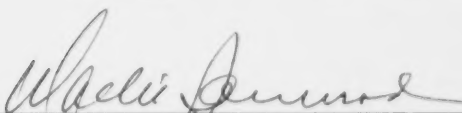
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled The Impact of the Diploma Examinations on the Teaching-Learning Process: A Concept Map submitted by Janice L. Swanson in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION in EDUCATIONAL PSYCHOLOGY.


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Date: April 18, 1994

DEDICATION

To my children,
Brendon, Lacey, Jessica, and McKenna,
who fill my life with abundance.
May you come to understand that
everything is possible.

Abstract

The purpose of this study was to identify and organize the views of Alberta teachers of diploma examination courses regarding the impact of the diploma examinations on the teaching-learning process.

A number of Alberta teachers were asked to list their views on the impact of the diploma examinations on the teaching-learning process. Concept mapping was used to identify common themes in the impact statements.

Themes which resulted are generally reflective of issues discussed in the literature. The eleven themes identified are as follows: **Assist In Attainment Of Educational Objectives; Provide Standard For Comparisons; Provide Well-Constructed, Common Exams; Instill Desirable Student Attitudes And Skills; Contribute To Negative View of Self and School; Provide Objectives For Teachers; Promote Alienation Between School And Public; Increase Demoralization Of Teachers; Promote Less Valid Evaluation; Promote Narrowing Of Curriculum; and Promote Focus On Goal Rather Than Process.**

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TABLE OF CONTENTS

	Page
I. INTRODUCTION.....	1
II. LITERATURE REVIEW.....	6
Effects on Students.....	6
Motivation.....	6
Approaches and Attitudes to Learning.....	8
Stress.....	10
Self-Concept.....	12
Classifying.....	13
Effects on Teachers.....	15
Uses of Exam Results.....	15
Stress.....	19
Effects on Teaching.....	20
Effects on Curriculum.....	21
Conclusions.....	25
Concept Mapping.....	28
III. METHODOLOGY.....	31
Concept Mapping Procedure.....	31
Instruments.....	32
Sample.....	33
Procedure.....	33
Impact List Editing.....	33
Sorting.....	37

Data Analysis.....	38
IV. RESULTS.....	40
V. DISCUSSION.....	52
VI. FINAL DISCUSSION.....	67
Summary and Conclusions.....	67
Limitations of the Study.....	68
Educational Implications.....	69
Recommendations for Further Research.....	71
VII. REFERENCES.....	73
VIII. APPENDICES.....	81
Appendix A - Initial Impact List.....	82
Appendix B - Revised Impact List.....	95
Appendix C - Revised Impact List.....	105
Appendix D - Final Impact List.....	109
Appendix E - Groupings Sheet for Theme Sort.....	112
Appendix F - 3 Cluster Solution.....	113
Appendix G - 17 Cluster Solution.....	117
Appendix H - 11 Cluster Solution.....	122

LIST OF TABLES

Table	Page
IV-1 Teachers' Statements on the Impact of Diploma Examinations on the Teaching-Learning Process.....	41
IV-2 11 Cluster Grouping of Teachers' Statements on the Impact of Diploma Examinations.....	47

LIST OF FIGURES

Figure	Page
IV-A Point Map Derived From Sort Data.....	44
IV-B 11 Concept Map of Teacher Impact Statements.....	46

Chapter I

INTRODUCTION

The reinstatement of the Alberta high school diploma examinations in 1984 was controversial (Nemeth & Samiroden, 1987; Martin, 1983). One area of debate regarding this reinstatement relates to the effects of the diploma examinations on the teaching-learning process.

In reviewing the literature related to the effects of standardized examinations on the teaching-learning process, it becomes apparent that there are more discussion papers than empirical studies. Sharp and Thomson (1984) comment that one of the reasons for the lack of empirical evidence in the area of examination effects is that

The nature of pupils' experiences of assessment and of the impact of examinations upon the curriculum and general school life tend to be understood largely on the basis of commonsense.

In the world of teaching, the 'backwash' effects of examinations are commonly recognised as a

constraint upon teaching and learning... (p. 38).

Kellaghan, Madaus, and Airasian (1982) state that much

of the debate on testing in the past has been based on ideological or political positions, rather than supported by empirical research on examination effects. Nagy, Traub, and MacRury (1986) state that the arguments in most of the discussion papers are not substantiated by data, nor are research methodologies described for assessment of the discussed effects.

Another point that arises from the literature, is that the degree and type of effects vary according to the purpose for which the examination is used (Shepard, 1990). Examinations which have the greatest effects are those which are used to make important decisions, those which become part of a permanent record, or become public, and those which are used to judge teachers, schools, or systems. These types of examinations are often referred to as "high stakes" examinations (Madaus, 1981; Shepard, 1990).

The dominant theme in the literature regarding effects of external examinations is that they are considered to have great impact on the teaching-learning process, both positive and negative.

The positive impacts include increased feelings of self-worth for the student who achieves well on an

external examination (Goslin, 1963), increased motivation for the student (Anderson, Muir, Bateson, Blackmore, & Rogers, 1990; Sharp & Thomson, 1984), and provision of standards for teachers for self-evaluation of teaching (Anderson et al., 1990).

The negative impacts include misusing exam results (Calder, 1990b; Shepard, 1990), teaching in a way that is dominated by preparation for testing (Madaus & Airasian, 1977; Bloom, 1961; Calder, 1990a), focusing on education as a product rather than a process (Sharp & Thomson, 1984; Eisner, 1993), and increased stress for students (Dorrington, 1986; Goslin, 1983; Calder, 1990b; Anderson et al., 1990).

Teachers' views about the impact of external examinations on the teaching-learning process have been elicited in the past (Dumont, 1977; Calder, 1990b); however, to the best of the writer's knowledge, teachers' views have never been systematically organized in a way that could provide a basis for further studies on the effects of diploma examinations on the teaching-learning process.

Therefore, this study asked a number of Alberta teachers of diploma examination courses to describe

what they thought were the effects of the Alberta diploma examinations on the teaching-learning process. The statements generated by this group of teachers were compiled into an impact statement list. Concept mapping procedures, as outlined by Trochim (1989b), were used to analyze the data collected in this study.

Concept mapping is a relatively new technique which allows the researcher to arrive at "a pictorial representation of the group's thinking which displays all of the ideas of the group relative to the topic at hand [and] shows how these ideas are related to each other" (p.2). This method was considered advantageous to use with this data because it was hoped that the themes which arose might provide the basis for further research into the effects of the diploma examinations on the teaching-learning process.

Although many people are affected by the practice in Alberta of having mandatory diploma examinations, this particular study was intended only to identify the views of teachers who teach diploma examinations about the impact of diploma examinations on the teaching-learning process. It was not designed to determine the importance or prevalence of the effects.

In Chapter II, the literature relating to the impact of diploma examinations is reviewed and the use of concept mapping as a way to provide a framework for further research is discussed. In Chapters III and IV, the methodology and results of the study are described. Chapter V is a discussion of the results. A summary, conclusions drawn from the study, and implications for further research follow in Chapter VI.

Chapter II

LITERATURE REVIEW

This chapter begins with a review of the literature regarding the effects of external examinations. The review will be organized into four main areas:

1. the effects on students
2. the effects on teachers
3. the effects on teaching
4. the effects on curriculum

These categories were used for easier identification of the effects of examinations, while keeping in mind the interactive effects on the teaching-learning process. For example, what affects the student will affect the teacher and vice versa (Calder, 1990a).

The chapter ends with a summary which provides a rationale for this research, and a review of concept mapping.

Effects on Students

Motivation

An area of research related to the effects of external examinations on the teaching-learning process, is that of the effects on students' motivation. It

appears that external examinations motivate students to work harder.

In a study using both an attitude inventory as well as a more qualitative essay component, Sharp and Thomson (1984) investigated the experiences of 539 Scottish pupils taking external examinations at the end of their compulsory schooling. They concluded that the main way that the external examinations motivated the students was by promoting a "need orientation" (p. 48). For example, students felt that they needed to do well on the examinations to be able to train for particular careers. Or, they felt that they needed to do well because of a fear of failure or because of parental pressure. Others also state that the motivation promoted by external exams is based on goals or needs (Madaus, 1981; Omvig, 1971; Shepard, 1990;).

Alberta and B.C. students reported working harder because of the diploma examinations (Dorrington, 1986; Calder, 1990b; Anderson et al., 1990).

One danger of external examinations is that a student's intrinsic motivation to learn may be destroyed by being exposed to examinations of a threatening nature (Sharp & Thomson, 1984; Bloom, 1969).

Approaches and Attitudes to Learning

Rogers (1969) concluded from his research that the factors that cause children to select an approach to learning include their perceptions of what will be demanded of them. They study in ways which will be rewarded. Bloom (1969) states that the need for exam success necessitates learning examination-taking strategies that are separable from the actual learning of the subject.

Results of Calder's (1990b) study suggest that students believe that their teachers should concentrate more on teaching what will be examined; in other words, they are in favor of teachers adopting a "teach to the exam" mentality. Comments from students in Dorrington's (1986) qualitative study support this view.

The effect on students' approaches to learning, when the above teaching focus is taken, was explored in a study by Samiroden (1991). The study involved 91 students and 121 teachers, mostly from the Edmonton area. Both questionnaires and interviews were used. One of the findings was that when process-oriented activities are given less classroom time than

lecturing, testing, and reviewing, students see the subject, in this case, science, as "a body of knowledge (a collection of correct answers) to be studied, and rote learning becomes more important than demonstrating process skills, critical thinking and sound judgement" (p.14).

Sharp and Thomson (1984) comment that this type of focus may inhibit students' potential for intellectual and social growth. They also found that one of the most striking features of student essays which they collected during their study on students' experiences with external examinations, was an "almost total absence of an intrinsic interest or positive enjoyment in school work" (p. 50).

Critics have said that the types of questions on external examinations foster a "surface" approach to learning as opposed to a "deep" approach (Nemeth & Samiroden, 1990; Stuart, 1987; Shepard, 1991). On the other hand, Madaus and McDonagh (1979) assert that examinations can be constructed to measure higher-order thinking; thus, well-formulated questions on an examination can promote "deep learning" (Martin & Saljo, 1976).

Stress

Stress on students brought on by standardized examinations is a focus of the literature. While a moderate amount of stress may have beneficial effects on learning, large amounts of stress can have negative effects on a student's ability to learn (Entwistle & Wilson, 1977).

Students in the B.C. study (Anderson et al., 1990) reported that the major problem with the provincial examinations was increased stress. Both teachers and students in Calder's (1990b) study felt that one of the major stressors related to diploma examinations was having students do well enough to gain university entrance. A common theme in the comments of the students involved in Dorrington's (1986) study was that they were under a great deal of pressure because of diploma examinations. It must be remembered when considering the results of Dorrington's study that it only involved six student who were talking about their perceptions of having to write the diploma examinations at the time of initial reinstatement. Because they were going to be the first to write diploma examinations after the reinstatement, this fact may

have colored their perceptions somewhat, especially in the area of stress.

In the Scottish investigation (Sharp & Thomson, 1984), and in other studies (Madaus & Airasian, 1976), many students reported similar concerns about their futures resting on examination results. Goslin (1963), talks about the type of stress brought on by abilities tests. Test results may "have several primary influences on decisions made about and by the examinee, on his self-image, and on the way he is perceived by other individuals" (p. 173-174).

Besides this pre-test type of anxiety, there is the type of anxiety that affects students' performances at the time of writing of the exam (Ligon, 1983). Ligon states that this type of test anxiety might be seen as affecting the teaching-learning process if classroom time is taken up with learning test-taking strategies to deal with anxiety. This sort of preparation in the classroom is reported to be happening with regard to diploma examinations (Calder, 1990b; Anderson et al., 1990; Dorrington, 1986), but it is not known if, in these cases, whether test-taking strategies are taught primarily to help reduce anxiety

or for other reasons.

Self-concept

The literature discusses the effects that standardized examinations have on the student's self-concept. Popham (1982), in talking about tests of basic skills, states that attitudes towards the self and school will become more positive as a result of becoming proficient in basic skills. According to Bloom (1969), there must be good self-concept in order to learn. There must be both subjective and public recognition of competence and then the student is motivated for further learning. External examinations could provide the feedback necessary to enhance self-concept and thus enhance learning in the future; the opposite may also occur. Heck (1983) comments that low scores on diploma examinations may damage the student's self-concept. Students who fail competency tests become discouraged and are more likely to drop out. A fear of failure may ensue with such effects as not taking a diploma course, dropping out, or even suicide. Many failed candidates of various types of external examinations from several cultural backgrounds reported themselves as failures, with some actually

contemplating suicide (Epstein, 1982; Madaus & McDonagh, 1979).

Classifying

Another way that students are affected by important or "high stakes" testing is by being classified (Shepard, 1991). Ability grouping happens across various types of external examinations, and in various countries. In talking about minimum competency testing, Trusz and Parks-Trusz (1981) state that the nature of standardized testing is such that it is inherently designed to rank and sort students. Shepard (1990) comments that the pressure to achieve high test scores causes "hard-to-reach" children to be rejected by the system. Gray (1981), in analyzing data from several British local education authorities makes this comment:

There is a distinct danger that by emphasizing the primacy of examination qualifications, we produce models of effective schools which are inadequate to the needs of a substantial minority of pupils and their teachers. Nor, as in real life, is there any protection against a school deciding to concentrate most of its energies on its more able

pupils (p. 33).

There was a concern expressed prior to the re-implementation of the diploma examinations that the education for non-academic students would not be given the same amount of attention as for academic students (Dumont, 1977). Findings of both the B.C. and Alberta studies (Anderson et al., 1990; Calder, 1990b) suggest that this concern has been realized.

Stuart (1987) comments that marginal students were being discouraged from taking diploma examination courses. In Calder's (1990b) study, a majority of students surveyed agreed that students are sometimes encouraged to drop courses rather than do poorly. It is interesting to note that 81% of the students in Calder's study were in the advanced diploma program so the viewpoints of the non-academic students were not as clearly heard.

In the B.C. (Anderson et al., 1990) study, the provincial examination courses were perceived as more high-status than the general courses. Parents there were also concerned that the system was designed for the minority of students who were post-secondary bound.

Some provinces such as Quebec have examinations in

all areas, while New Brunswick has parallel examinations at both the non-academic and academic levels (Calder, 1990b).

Effects on Teachers

Uses of Exam Results

An area that the research focuses on is uses of exam results and how they affect the teaching-learning process. Madaus (1981) states it is the purpose of the standardized examination which affects teacher' uses of it:

Both history and the contemporary experience of western European countries reveal that, whenever decisions that affect individual life changes (e.g. graduation from high school or grade-to grade promotion, teacher salary or tenure decisions, school certification, or the allocation of funds), the agency that administers the test assumes a great deal of power over the schooling process. When external tests are used in these ways, administrators, teachers, and pupils take the results seriously and modify their behavior and attitudes accordingly (p. 635).

In a study involving 68 elementary school

teachers, Salmon-Cox (1981) found that, in the absence of the context of a high stakes environment, standardized testing is not of great relevance to the classroom teacher. Researchers have found that some of the reasons for this latter attitude are that teachers feel that standardized tests do not measure achievement of social goals nor are they broad-based (Salmon-Cox, 1981; Sproull & Zubrow, 1981; Kellaghan, Madaus & Airasian, 1982; Goslin, 1967; Stake, 1991). Teachers' preferred uses of the information from standardized tests is to confirm or supplement what they already know about students (Salmon-Cox, 1981), and for orienting students and teachers to a common curriculum (Stake, 1991).

Alberta Education prepares and distributes a variety of reports which are available to the public and which can be used in many ways. Teachers in Calder's (1990b) study reported that one benefit of diploma examination results being made public, is that they can compare their students' results to students' results in other classes or even in other parts of the province, and that this helps in self-evaluation. Symrozum and Hrabi (1981) comment that comparison of

diploma examination results to provincial averages may be beneficial for curricular and instructional evaluation.

In a nationwide U.S. survey involving principals and teachers from 91 school districts, Herman and Dorr-Bremme (1983), found that teachers do not want to be held accountable for students' test scores. In a survey of state testing directors on curriculum, Shepard (1990) found that "the most pervasive source of high stakes pressure identified [regarding test results] was media coverage" (p. 17). Martin (1983) commented that the idea of measuring teacher competence as a possible use of diploma examinations results is unsettling to teachers. In 1990, this view was substantiated when Calder found that the greatest concern of teachers is the possible misuse of test results in the evaluation of teachers. Exactly the type of misuse is not clear, but 21% of teachers said that administrators had misused results of diploma examinations. Samiroden (1987) stated that many comparisons can be made from reports of exam results, and that the results "become a way for administrators to appraise the performance of their teachers in

relation to other teachers in their jurisdiction and the province-at-large" (p. 6).

Airasian and Madaus (1983) discuss the reasons why standardized tests may not be appropriate to detect performance differences among schools or programs. One reason is that, because test items are designed to assess individuals, conclusions drawn about the mean performance of the group may be very different from conclusions drawn about an individual's performance. Also, if examinations are to be fair to all pupils, then content selection cannot reflect specific content and objectives for particular schools and programs. Another reason is that the way things are taught does not always reflect how they are tested.

Lofty (1993) reported that the British government's proposal to publish test results was met with counters that scores cannot represent the different learning that takes place in schools. Even when schools appear comparable, their resources and the social backgrounds of students are different.

Shepard (1990) undertook a study to evaluate the credibility of publicly reported scores on standardized tests administered in high stakes settings. Results

were that students' performance on reading and math content appears to be dramatically poorer when they were given an independent assessment as opposed to when they took the district standardized tests.

B.C. teachers felt that using scores for comparisons of teachers and schools is detrimental (Anderson et al., 1990). One of the recommendations of the B.C. study was that appropriate uses of the provincial examination program should be clearly outlined.

Stress

There is some discussion in the literature on teacher stress due to external examinations. With regard to the effects of province-wide assessment on teachers, the Canadian Teachers' Federation (CTF) (1981) report suggests that when teachers feel dissatisfied with the increasing outside control of their work, this dissatisfaction can cause stress and reduce morale. This comment is reflected in the findings of the B.C. (Anderson et al., 1990) study. Alberta teachers were fairly evenly split on whether or not diploma examinations caused stress (Calder, 1990b).

Effects on Teaching

Madaus and Airasian (1977) state that there are two main sets of objectives when external examinations are part of the educational system - learning the curriculum and learning test-taking strategies. When faced with these two objectives, studies have shown that teachers will generally choose to focus on the latter (Airasian, Madaus & Pedulla, 1979).

Critics have asserted that when facts and skills are learned out of context, there is no way to make the knowledge meaningful and easy to remember, and learning skills out of context means not knowing how to apply them to real problems (Shepard, 1991; Nemeth and Samiroden, 1990). This type of teaching is said to foster a dependent relationship of the student on the teacher and does not encourage responsible learning of the type needed for post-secondary institutions (Entwistle, 1981; Makins, 1977). Madaus & McDonagh (1979) assert that the principal positive effect of external exams on teachers is that teachers clearly focus their teaching on what society feels is important. Popham (1982) states that teachers are better able to give students more time on task when

they have the clearly defined goals of external examinations.

Teachers feel a responsibility to promote learning and to prepare students for testing (Herman and Dorr-Bremme, 1983; Dorrington, 1986). Researchers have found that external testing may even aid the teacher-student relationship because they will be allied against the outside examiner (Lewis, 1979; Makins, 1977; Dorrington, 1986).

More Alberta teachers agreed than disagreed that diploma examinations positively affect the way they teach (Calder, 1990b), although it is not clear how teachers are defining "positive".

Effects on Curriculum

"The quickest way to introduce new curricular material is to include it in the examinations" (Madaus and McDonagh, 1979). It is accepted that tests have some influence on curriculum (Goslin, 1967). One way that curriculum is controlled is by emphasis on recall of facts (Madaus & MacNamara, 1970). An example illustrating this was the deliberate attempt by the U.S. Navy to control both curriculum and classroom activities using testing (Struit, 1947).

One of the reasons that curriculum can be fairly easily controlled by standardized examinations is that when classroom objectives and the content of external examinations compete, it is generally assumed that the objectives actually tested will take precedence for both teacher and student (Madaus and Airasian, 1977).

Shepard (1990) describes this survey of state testing directors and their views on narrowing of the curriculum and "teaching to the test":

When asked, "Do you think that teachers spend more time teaching the specific objectives on the test(s) than they would if tests were not required?" the answer from the 40 high stakes states was nearly unanimously, "Yes." (p. 18).

Many described this as a positive.

Other positives of the influence of minimum competency examinations on curriculum are that they can lead to "broadening the school curriculum to include skills and competencies previously neglected or treated only informally" (Madaus & Airasian, 1977; Shepard, 1990), and that becoming increasingly efficient in reaching goals leaves more time for other instruction thereby broadening curriculum coverage (Popham, 1982).

Also, "curricular repairs can begin where test results leave off" (Popham and Rankin, 1981, p. 639).

On the other hand, McLaughlin (1991) states that Tests have narrowed the curriculum to the specific topics that they cover, and in some cases tests have turned the minimum curriculum, as expressed by test content, into the maximum. Most of the tests in use today - and certainly tests of the multiple-choice variety - measure only what can be counted easily and cheaply (p. 248-249).

Shepard (1990) reports that negative comments from the above described survey included the opinion that higher level objectives of the curriculum suffer. (Madaus & Airasian, 1977) comment that the right balance of emphasis on curricular goals is necessary to avoid either, at one extreme, too few changes in instruction, or, at the other extreme, a "teach-to-the-exam" mentality.

In B.C., adhering more closely to the provincial curriculum was seen as beneficial (Anderson et al., 1990), yet teachers reported dissatisfaction over the narrowing of the curriculum because it reduced

flexibility in topics that they could cover and the depth in which they could cover them.

Nearly half of the Alberta teachers surveyed stated that having the diploma examinations plays a role in making them adhere to the Program of Studies. Almost one-fourth of the teachers said that they would deviate from the Program of Studies if there were no diploma examinations. However, they were against, two to one, in having the diploma examinations shape the curriculum; nonetheless, it was pointed out that more teachers are often teaching only the part of the curriculum that will be examined. Many of the teachers reported that they eliminated or modified many elective activities such as field trips, labs, and discussions of current events. These practices reflect the views of Nemeth and Samiroden (1990) as to how the diploma examinations narrow and guide the curriculum. In a qualitative study conducted by Hart (1988), involving two Alberta teachers, the feeling was that the relationship of the curriculum to the examination was almost an afterthought, and that "testing is trying to overpower the curriculum" (p. 12).

The majority of Alberta teachers surveyed in

Calder's (1990b) study felt that the diploma examinations have not made them rush their teaching, but the majority of students felt that the teachers are rushing.

Another concern is that the curriculum of non-tested subjects will narrow as a result of the focus on the more "important" tested subjects (Herman & Dorr-Bremme, 1983; Shepard, 1990). This is reported to have happened as a result of the B.C. provincial examinations (Anderson et al., 1990).

Conclusions

The main finding of this review is that external examinations have a major impact on the teaching-learning process.

Some of the ways that external examinations positively affect students are that they may increase motivation to study, and they may increase positive views towards the self and school if the student achieves well on the examination. Also, external examinations may prepare students to deal with similar situations in the future. In addition, well-constructed questions may promote higher-order learning.

External examinations may negatively affect students by promoting a focus on the goal rather than on the process of learning which may result in changes in approaches to learning with memorization replacing understanding of concepts. Students may also experience increased stress, especially if they believe the examination results will have a great impact on their futures.

Teachers are positively affected by external examinations in several ways. They may follow the curriculum more closely, they may develop teaching methods which enhance student learning, and they may use external examinations to improve their own methods of evaluation.

The negative effects of external examinations for teachers include teaching in ways that promote surface learning and memorization, possible misusing of examination results for purposes of teacher evaluation, and focusing on parts of the curriculum likely to be examined.

Although a number of studies make similar conclusions about the effects of external examinations on the teaching-learning process, it must be remembered

that the generalizability of research findings on the effects of external examinations is limited in terms of the Alberta diploma examinations because of several reasons:

1. Much of the research is based on examinations which have different purposes than the purposes of the "high stakes" diploma examinations.
2. There are many different types of examinations discussed in the literature - minimum competency, certifying, abilities, and others - which may only have some similarities to the Alberta diploma examinations
3. Findings from other countries, such as England and Scotland must also be viewed with caution, not only because of the differences between those systems and Alberta's, but also for reasons such as geographic distance and cultural disparity.

The most relevant studies to Alberta are the B.C. (Anderson et al., 1990), and the Alberta (Calder, 1990b) surveys investigating the effects of high school provincial examinations.

Arising from the Alberta (1990b) study is abundant information available from the opinions of both students and educators about these effects; it seems sensible to continue from where the Alberta study leaves off. Focusing on and organizing teachers' views about the impact of diploma examinations may serve to provide a framework or reference point for future research on particular areas regarding the effects of diploma examinations. In this study, concept mapping was the method used for analyzing and examining the data gathered regarding the impact of diploma examination on the teaching-learning process.

Concept mapping

Concept mapping, developed by William Trochim (1989a), is a relatively new procedure involving statistical techniques that allows ideas to be clustered into themes and presented in map form. The six steps usually followed are: planning the study, generating the statements, structuring the statements, representing the statements in concept map form, interpreting the maps, and using the results (Trochim, 1989a).

Initially, concept mapping was used primarily for

program planning and evaluation for projects such as investigating the pertinent issues in delivery of services to senior citizens (Trochim, 1989b), designing programs for a multicultural awareness camp, and identifying issues necessary for Planned Parenthood's long term planning (Trochim, 1989a).

Concept mapping has recently been used in psychology to explore the dysfunctional beliefs of battered women (Calder & Deby, 1992), the problems of families involving remarriage (Phillips, 1993), and the experience of depression (Hernal, 1993). Concept mapping has also been useful in helping to develop curricula for several groups including a mental health association, and a music school (Trochim, 1989b). It has also been used to organize the activities that school counsellors report being involved in with the hope that the resulting information may be useful in developing a pertinent counsellor training program for school counsellors (Chorney, 1994).

Concept mapping may be useful for examining other aspects of education by obtaining the views of those directly involved with the particular aspect in question. Specifically, it is hoped that this study

shows how concept mapping can be uniquely useful in examining the effects of the diploma examinations on the teaching-learning process by organizing the viewpoints of teachers actually involved in teaching courses which require diploma examinations.

This review of selected literature focused on the discussions and research related to the effects of external examinations on the teaching-learning process. Effects were explored in relation to various types and purposes of external examinations, with an emphasis on high school evaluation, and the Alberta diploma examinations. The literature review will inform the discussion of findings of the study and will be used to interpret the overall discussion and conclusions presented in the final chapter.

The next chapter will present the research design that guided the study.

Chapter III

METHODOLOGY

The purpose of this study was to determine the views of Alberta teachers of diploma examination courses on the effects of diploma examinations on the teaching-learning process and to analyze them using the concept mapping procedure.

Concept Mapping Procedure

The concept mapping procedure as defined by Trochim (1989b) was used for this study. Because this is a relatively new procedure, a brief description of the steps involved follows.

The process initially involves focusing on a topic and having the selected participants generate statements "which ideally should represent the entire conceptual domain for the topic of interest" (Trochim, 1989b, p. 4). The next step is to determine if and/or how the generated statements are related to one another. The statements are printed on individual cards and independent sorters, usually about 25, are asked to sort the cards for similarity.

This sort data is then entered into a computer program designed by Trochim. The computer program uses

multidimensional scaling to analyze the sort data to produce a point map showing each of the generated statements as a dot on the map, the location of which is determined by the sort data. For example, if many sorters sort two statements together in the same group, those statements will likely be near each other on the map. This map can be further divided into clusters which are superimposed on the points. The result is a cluster or concept map.

Accompanying the concept map is a cluster solution which lists the items grouped together and the degree to which they are related. The program is able to generate a variety of cluster solutions. One must therefore choose the most useful solution for the particular situation. In this study, the intent was to arrive at a concept map and an accompanying cluster solution that could provide the basis for further evaluation of the effects of diploma examinations using teachers' observations and opinions.

Instruments

Participants were asked for their views on the impact of the diploma examinations on the teaching-learning process (Appendix A). Because the first set

of statements were elicited in conjunction with a previous study, all of the ethical requirements had been met at that time. Previous to the asking of the question for the second time in 1994, approval was given by the Ethics Review Committee of the Department of Educational Psychology. Participation in the study was voluntary and participants were not asked to identify themselves.

Sample

The question was initially sent out with an accompanying survey to 38 Alberta schools, with a request for the principal to give the question to at least three teachers. Although it was not possible to tell how many of the teachers actually received the questionnaire, Calder (1990b), who undertook the study, stated that 135 teachers responded from approximately 50% of the schools initially contacted. In 1994, the question was again asked of six teachers from several schools in the Edmonton area.

Procedure

Impact List Editing

The statements generated by the high school teachers form the initial impact list (Appendix A).

It was necessary to make this initial impact list into one that would be easier to analyze. This was done by grouping, by making each numbered line have only one idea, by re-writing, and by eliminating redundant statements. A description of the procedure follows.

First, different opinions were grouped together according to whether or not they were positive, negative, or neutral. Second, statements with similar meaning were grouped together.

The next step was to make each numbered line contain only one idea, and reduce the amount of words used while at the same time retaining the meaning of each idea, preferably by using exact wording as often as possible.

To eliminate redundant statements, a systematic procedure was followed. The first step was to place together statements which had similar or identical keywords. At this point, three other people gave opinions as to further regroupings of the statements, and either concurred or presented alternative viewpoints as to how to eliminate, combine, or reword statements. For example, in the case of two clearly redundant statements such as "They encourage students

to work harder" and "Students are working harder" one was subsumed under the other with the resulting final statement being "Students are working harder".

For less obviously redundant or more wordy views, the same procedure was followed. For example, the meaning of this opinion - "The test drives the curriculum. Instead of being able to teach them (in the 20%) other topics useful for post-secondary courses, one tends - even if one does the 20% elective - to extend the areas that will be tested. I am doubtful whether teachers even do that" - was considered to be similar to other statements focusing on "teaching to the exam". It was therefore subsumed under the statement "tendency to teach to the exam".

Another way that the number of statements was reduced was by using general statements to cover many specific statements relating to the same concept. For example, there were a variety of specific statements focusing on the idea that teachers were spending less time on enrichment activities in the classroom. By using the general statement "discourage enrichment activities", the number of statements in the list was decreased dramatically.

Further streamlining was done by eliminating words not necessary to the meaning of the statement, or by changing the wording somewhat, again while attempting to retain the meaning. For example, the statement "Students more frequently drop my class with only a bit to go; they want to "upgrade" next year before they write the diploma exam", became "students more frequently drop course near end to upgrade next year." It was agreed not to include confusing statements such as "Students should be in class because they want to or need to be there". Statements that were not considered, at least indirectly, to be an impact of the diploma examinations, were eliminated.

To make the statements shorter for the final list (Appendix D), words such as extraneous verbs and articles were eliminated from the statements if they were deemed to be unessential to the meaning of the statement. For instance, "I don't enjoy teaching 30 level subjects as much as I used to" became "less enjoyment teaching 30 level subjects". It was hoped that these shorter statements would not only facilitate the data analysis, but would also make the sorting procedure more manageable; if the statements were

shorter, sorters would not only be more encouraged to complete the task, but they would complete it in a more conscientious manner.

Finally, the statements were randomly renumbered. The word "statements" was used for simplicity; usually the "statements" are not complete statements in the generally accepted meaning of the word, but are generally phrases. Several questions were even used as doing so helped to retain the meaning of the viewpoint.

Sorting

The items on the final list were used for the sorting task that preceded the data analysis. There were 30 independent sorters who completed the sorting task that preceded the data analysis. Ten were fourth-year education students in a course in educational measurement, ten presently are teachers, and ten who, although not directly involved with the public education system, are interested in its operations. These latter ten included several business people, a business student, a speech pathologist, several parents of students taking diploma courses, and a high school student taking diploma examination courses.

Each of the 30 sorters was given a package of 89

cards. Each card had on it a statement taken from the final impact list. The sorters were instructed to put the 89 cards into groups in a way that made sense to them. They were told to group statements for similarity, not priority. It was stressed that there was no right or wrong way to sort the statements. They were then to record the numbers of each statement in each group (Appendix E).

Data Analysis

The resulting sorts were then entered into the computer for analysis using the Concept Mapping Program designed by Trochim. To determine which was the most useful map for the purpose of this study, the following steps were taken.

First, the statements within each group of the concepts maps chosen were examined for conceptual similarity. Then, the bridging index value, a number between 1 and 0, which is a measure of one item's relationship to others in the group, was examined. If the statement had a low bridging index value, it was assumed that it had been sorted primarily with statements close to it on the map. On the other hand, if it had a high bridging index value, then it was

assumed it had been sorted with other statements besides those close to it on the map.

By following the outlined procedure, one concept map and its accompanying cluster solution was determined to provide the most appropriate degree of conceptual clarity for the purposes of this study. Then each of the clusters of the chosen map was given a label that best reflects the nature of its statements.

The results obtained from the analysis of the data are presented in the next chapter.

Chapter IV

RESULTS

In this chapter, results of the statistical analysis outlined in Chapter III are presented in relation to the research question "What is the impact of the diploma examinations on the teaching-learning process?"

There were 89 teacher statements on the final, revised list of the impact of diploma examinations on the teaching-learning process (Table IV-1). To identify common themes in the teacher impact list, the items were analyzed according to the steps previously outlined in Chapter III. The result is the point map (Figure IV-A). On the point map, there is variation in clarity of the 89 statement numbers; some are clearly visible, while others are not, even to the point of overlapping. The reasons for this are if the numbers are close together or overlapping, it means that they were sorted together fairly consistently; if the numbers are clearer or farther apart, it means that they were sorted together less often.

After analyzing the 3 cluster solution and the accompanying concept map (Appendix F), it was decided

**Teachers' Statements on the Impact of Diploma
Examinations on the Teaching-Learning Process**

1. marks are better
2. provide standard for teacher to evaluate teaching methods
3. provide a focus for teacher
4. types of questions asked because of efficiency in marking
5. tendency to "teach to exam"
6. has had little effect on how and what I teach
7. encourage students to work harder
8. provide external standard for self-evaluation of schools and districts
9. decreased time in elective activities
10. mark inflation and lower standards due to less rigorous testing and less material
11. pressure on teacher to have students attain at least provincial average
12. external motivator for students
13. provide a standard for post-secondary institutions to rate applicants
14. teachers do same things, instead of building on their strengths, weaknesses
15. misused as evaluation of teachers, schools, administrators, and school systems
16. more time required for teacher to improve/change teaching strategies
17. students retain more content
18. provide standard for making awards
19. not enough time to experiment with new ideas
20. students seem more "mark hungry" and competitive
21. provide media with platform for attack - no matter the result
22. external motivator for teacher
23. students at same position as others in first year university
24. little room to make course interesting
25. difficulty level of exams seems to vary - unfair to students
26. Dept. of Ed. provides little explanation of meaning of curriculum evaluation.
27. provide a focus for student
28. students sometimes feel a bad performance during year can be salvaged on final

Table IV-1 (continued)

29. discourage teacher autonomy
30. students now repeating the 30 level several times
31. students more serious about their work
32. importance of consistent performance undermined
33. less enjoyment teaching 30 level subjects
34. students more frequently drop course near end to upgrade next year
35. assure important concepts covered
36. promote student and teacher against exam mentality
37. lowered self-esteem among teachers
38. time taken for increased testing affects programs
39. ensure common curriculum in province
40. increased stress for students
41. attitudes geared to endpoint and not to process of learning
42. certain skills tested in depth
43. not enough "partnership" between parents, teachers, and government
44. discourage enrichment activities
45. increased cheating among students
46. good blend of knowledge and skill required for application questions
47. increased stress for teacher
48. critical thinking de-emphasized; memorization encouraged
49. comparison of school mark with teacher mark often not legitimate
50. question types well done - better than what teacher could make
51. strain on collegial efforts among some teachers
52. discourage appreciation of learning
53. student with lower school mark may challenge teacher's evaluation competence
54. prepare students for writing other exams
55. students consider class time after Part A of English exams unimportant
56. students have less sense of humor, less curiosity, less willingness to take risks
57. parents pressure teachers to elevate students' grades as buffer
58. prepare students for pressure of university
59. possible to pass multiple choice without being able to write a sentence
60. exam design carried through to curriculum and class tests

Table IV-1 (continued)

61. decreased study of current topics relevant to students' lives and futures
62. development of useful writing skills
63. testing ability to find right answer or eliminate three wrong answers?
64. students less willing to work through long answer questions
65. integrity of classroom and school-based program undermined
66. student can compensate for time lost during illness by doing well on final
67. students not interested in doing extra electives
68. student autonomy down
69. exam quality sometimes poor
70. reduced pressure from parents to award high marks
71. some students work towards only mastering how to write exam
72. lowered self-esteem among students
73. exam results seen to lack in validity and reliability
74. field testing does not make a good exam
75. reinforce careful reading
76. parents do not want teacher to go beyond testable curriculum
77. assure fairness for final comparison of students' results
78. lower achieving students channelled to non-academic routes to maintain higher averages
79. standardize 50% of evaluation throughout province
80. provide standard for parents/students to gauge success
81. exams getting more technical, into fringe areas, frustrating general students
82. students give up ... drop outs? suicides?
83. does curriculum provide for all students - or just those post-secondary bound?
84. how much standardization is good?
85. more commitment and planning when teaching a diploma course
86. reinforce development of a precise vocabulary
87. teaching of course in more business-like manner
88. teaching is a little easier
89. teachers spend more time analyzing previous diploma exams

Point Map Derived From Sort Data



that this arrangement has more general themes than what was desirable for the purposes of this study.

In an attempt to create a concept map that had more closely related themes, the 17 cluster map and its accompanying cluster solution (Appendix G) was examined. Again, as with the 3 cluster solution, themes are not clear, this time because some of the numerically adjacent clusters on the concept map have statements which are very conceptually similar, which resulted in having statements with similar, if not identical themes, or no themes at all. For example, many statements from clusters 1 and 5 would be better placed together.

Several more clusters between 3 and 17 were then analyzed. An 11 cluster solution was finally chosen as being the most conceptually clear while at the same time having a sufficient number of clusters to identify areas of effects that would perhaps provide a basis for future research. The concept map of this solution is shown in Figure IV-B, and the 89 impact statements grouped in the 11 cluster solution are listed in Table IV-2.

Representative labels were then chosen for each of

Figure IV-B

11 Concept Map of Teacher Impact Statements



11 Cluster Grouping of Teachers' Statements
on the Impact of Diploma Examinations

Cluster 1 (Assist In Attainment Of Educational Objectives)

- 1. marks are better (0.34)
- 62. development of useful writing skills (0.32)
- 75. reinforce careful reading (0.33)
- 35. assure important concepts covered (0.49)
- 80. provide standard for parents/students to gauge success (0.65)
- 46. good blend of knowledge and skill required for applicat... (0.38)
- 77. assure fairness for final comparison of students' resul... (0.46)
- 86. reinforce development of a precise vocabulary (0.45)

Cluster Average = 0.43

Cluster 2 (Provide Standard For Comparisons)

- 8. provide external standard for self-evaluation of school... (0.57)
- 13. provide a standard for post-secondary institutions to r... (0.50)
- 18. provide standard for making awards (0.45)
- 39. ensure common curriculum in province (0.47)

Cluster Average = 0.50

Cluster 3 (Provide Well-Constructed, Common Exams)

- 42. certain skills tested in depth (0.59)
- 60. exam design carried through to curriculum and class tes... (0.71)
- 50. question types well done - better than what teacher cou... (0.57)
- 79. standardize 50% of evaluation throughout province (0.64)

Cluster Average = 0.63

Cluster 4 (Instill Desirable Student Attitudes And Skills)

- 7. encourage students to work harder (0.30)
- 31. students more serious about their work (0.26)
- 27. provide a focus for student (0.27)
- 12. external motivator for students (0.35)
- 17. students retain more content (0.37)
- 23. students at same position as others in first year unive... (0.52)
- 66. students can compensate for time lost during illness by ... (0.49)
- 54. prepare students for writing other exams (0.37)
- 58. prepare students for pressure of university (0.40)

Cluster Average = 0.37

Cluster 5 (Contribute To Negative Self And School Concept)

- 20. students seem more "mark hungry" and competitive (0.38)
- 28. students sometime feel a bad performance during year ca... (0.51)
- 78. lower achieving students channelled to non-academic rou... (0.61)
- 25. difficulty level of exams seems to vary - unfair to stu... (0.39)
- 55. students consider class time after Part A of English ex... (0.26)
- 67. students not interested in doing extra electives (0.25)
- 81. exams getting more technical, into fringe areas, frustr... (0.22)
- 56. students have less sense of humor, less curiosity, less... (0.25)
- 64. students less willing to work through long answer quest... (0.18)
- 71. some students work towards only mastering how to write ... (0.33)
- 30. students now repeating the 30 level several times (0.12)
- 40. increased stress for students (0.08)
- 34. students more frequently drop course near end to upgrad... (0.07)
- 68. student autonomy down (0.06)
- 82. students give up ... drop outs? suicides? (0.15)
- 45. increased cheating among students (0.02)
- 72. lowered self-esteem among students (0.00)

Cluster Average = 0.23

Cluster 6 (Provide Objectives For Teachers)

- 2. provide standard for teachers to evaluate teaching meth... (0.60)
- 88. teaching is a little easier (0.70)
- 70. reduced pressure from parents to award high marks (0.76)
- 3. provide a focus for teacher (0.66)
- 22. external motivator for teacher (0.71)
- 6. has had little effect on how and what I teach (1.00)
- 85. more committment and planning when teaching a diploma c... (0.76)

Cluster Average = 0.74

Cluster 7 (Promote Alienation Between School and Public)

- 15. misused as evaluation of teachers, schools, administrat... (0.51)
- 26. Dept. of Ed. provides little explanation of meaning of ... (0.54)
- 21. provide media with platform for attack - no matter the ... (0.59)
- 43. not enough "partnership" between parents, teachers, and... (0.67)

Cluster Average = 0.58

Cluster 8 (Increase Demoralization Of Teachers)

- 11. pressure on teacher to have students attain at least pr... (0.32)
- 16. more time required for teacher to improve/change teachi... (0.41)
- 57. parents pressure teachers to elevate students' grades a... (0.30)
- 76. parents do not want teacher to go beyond testable curri... (0.40)
- 14. teachers do same things, instead of building on their s... (0.21)
- 29. discourage teacher autonomy (0.16)
- 87. teaching of course in more business-like manner (0.37)
- 33. less enjoyment teaching 30 level subjects (0.13)
- 37. lowered self-esteem among teachers (0.13)
- 47. increased stress for teacher (0.15)
- 51. strain on collegial efforts among some teachers (0.13)
- 89. teachers spend more time analyzing previous diploma exa... (0.26)

Cluster Average = 0.25

Cluster 9 (Promote Less Valid Evaluation)

- 4. types of questions asked because of efficiency in marki... (0.45)
- 69. exam quality sometimes poor (0.28)
- 74. field testing does not make a good exam (0.30)
- 36. promote student and teacher against exam mentality (0.73)
- 73. exam results seen to lack in validity and reliability (0.42)
- 10. mark inflation and lower standards due to less rigorous... (0.43)
- 84. how much standardization is a good thing? (0.56)
- 49. comparison of school mark with teacher mark often not l... (0.36)
- 65. integrity of classroom and school-based program undermi... (0.43)

Cluster Average = 0.44

Cluster 10 (Promote Narrowing Of Curriculum)

- 5. tendency to "teach to exam" (0.39)
- 19. not enough time to experiment with new ideas (0.38)
- 24. little room to make course interesting (0.30)
- 9. decreased time in elective activities (0.53)
- 44. discourage enrichment activities (0.45)
- 38. time taken for increased testing affects programs (0.42)
- 48. critical thinking de-emphasized; memorization encourage... (0.47)

Cluster Average = 0.42

Cluster 11 (Promote Focus On Goal Rather Than Process)

- 32. importance of consistent performance undermined (0.62)
- 52. discourage appreciation of learning (0.49)
- 41. attitudes geared to endpoint and not to process of lear... (0.55)
- 53. student with lower school mark may challenge teacher's ... (0.70)
- 59. possible to pass multiple choice without being able to ... (0.43)
- 61. decreased study of current topics relevant to students'... (0.49)
- 63. testing ability to find right answer or eliminate three... (0.45)
- 83. does curriculum provide for all students - or just thos... (0.59)

Cluster Average = 0.54

the 11 clusters. In selecting the labels, particular attention was given to those statements within each group with a low bridging index, because a low value indicates a greater likelihood that the statement was sorted with the statements close to it on the map (The 11 cluster solution with accompany bridging values is in Appendix H).

Some of the clusters have clearer themes than others, with statements that are more closely related to one another. In general, the themes which arose are the ones related to those discussed in the literature:

1. Assist In Attainment Of Educational Objectives
2. Provide Standard For Comparisons
3. Provide Well-Constructed, Common Exams
4. Instill Desirable Student Attitudes And Skills
5. Contribute To Negative View of Self And School
6. Provide Objectives For Teachers
7. Promote Alienation Between School And Public
8. Increase Demoralization Of Teachers
9. Promote Less Valid Evaluation
10. Promote Narrowing Of Curriculum
11. Promote Focus On Goal Rather Than Process

Chapter V is a discussion of the results.

Chapter V

DISCUSSION

The question "What is the impact of the diploma examinations on the teaching-learning process?" was asked of Alberta teachers of diploma examination courses. The ensuing 89 statement impact list and data analysis resulted in a concept map showing 11 different clusters or thematic units.

In discussing the themes regarding the impact of the diploma examinations on the teaching-learning process, it is important to keep in mind that the prevalence or importance of each statement is not known; the statements serve only to develop a conceptual framework.

Themes which resulted are generally reflective of those identified in the literature, and are often interactive with one another.

The theme of Cluster 1, **Assist In Attainment Of Educational Objectives**, focuses on student learning such as development of reading, writing, and vocabulary along with learning how to apply knowledge and skills, These are all important generalizable aims of education, both in terms of other learning situations

in school and and in the "real world".

The issue of fairness in this cluster can be considered to relate to this theme because more learning may occur if teachers and students see the final evaluation as being objective. However, it is interesting to note that in the case of the diploma examinations, teachers feel that the exams are more fair than do the students (Calder, 1990b).

Providing standards for parents and students to gauge success, is a statement with a fairly high bridging index, which means that it was sorted fairly often with other statements, particularly those in Cluster 2, which has as its theme, **Provide Standard For Comparisons**. This could suggest that, in relation to Cluster 1, providing standards for parents and students can be seen as a way of promoting learning, although perhaps indirectly, through parental and student awareness. Providing standards can also be seen in relation to the theme of Cluster 2, that diploma examinations provide external standards to make comparisons. The diploma examination results are seen as a fair method of making important decisions regarding a student's present and future schooling.

Also, teachers use the standards for purposes of self-evaluation and improving teaching strategies (Calder, 1990b).

Ensuring common curriculum in the province is important for both teachers and students. Students will cover what has been deemed to be important at this stage in their schooling because the tests will cover the curriculum and thus, teachers are provided with motivation to cover the "core" of material required for the tests.

Cluster 3 discusses the benefit of having **Well-Constructed, Common Exams**. One statement, that exam design is carried through to curriculum and class tests, has a high bridging index, and may mean that this statement may be seen as both positive and negative. To explain further, this statement, #60, lies between the cluster that focuses on the negative effects of the nature of the tests and the cluster that focuses on the positive effects of the nature of the tests, although it is closer to the positive statements. This position could mean that it is positive that teachers are closely following the curriculum; but, it could be negative in that narrowing

of the curriculum could also be occurring.

Another statement, that certain skills are tested in depth, is an indication of the view that the diploma examinations are well-constructed. Teachers are involved in the development of the Alberta diploma examinations right from its initial stages of construction through to the marking. This involvement of many teachers may help to foster a positive attitude towards the test construction since it gives them a sense of ownership. Many teachers report learning a great deal about how to improve evaluation in their own classrooms.

Standardizing 50% of the evaluation throughout the province is seen as a positive of the exams, because it gives teachers a chance to compare results for purposes of self-evaluation. Also, having this weighting gives the teacher a chance to evaluate, as teachers do feel that their evaluations are more valid than the result of a standardized test (Calder, 1990b). This weighting could be seen as a reasonable compromise between the pro- and anti- diploma examination factions.

The theme of the statements in Cluster 4 is

Instill Desirable Student Attitudes And Skills. Many students are motivated to work harder in a serious, focused way out of a need orientation (Sharp & Thomson, 1984). Increased motivation is likely to result in outcomes such as increased learning, higher marks, and broadening of options for future learning (Dorrington, 1986; Calder, 1990b; Anderson et al., 1990; Sharp & Thomson, 1984).

Other benefits in this cluster deal with having students better prepared for future and similar situations such as having to write university examinations. They will have already been familiarized with this type of pressure and testing format. A possible concern here is that this benefit only applies to those students who are post-secondary bound. This emphasis on the more academic student seems to confirm the concern expressed in the MACOSA (Dumont, 1977) report that if diploma examinations were to be reinstated, more attention would be focused on the students in academic routes rather than those in non-academic routes. Other research indicates that this concern has been realized (Anderson et al., 1990; Calder, 1990).

The statement that students retain more content is seen as a benefit perhaps because retaining more content will not only help students on the exams, it could also provide a basis for subsequent instruction, perhaps at the post-secondary level. Again, this particular benefit of retaining more content might pertain more to the post-secondary bound student.

Cluster 5 focuses on the theme that diploma examinations **Contribute To Negative View of Self And School**. This theme is reflected in the comments of Sharp and Thomson (1984) who stated that the most striking feature of their findings was an absence of intrinsic interest or positive enjoyment in school work. Also, expanded here, is the concern regarding the possibility of less focus on the non-academic students which extends to include not only the lack of focus on their educational needs as talked about, but also includes a possible neglect of concern for other needs of the non-academic student. For example, the highly technical nature of the exams is seen as causing frustration for the non-academic students. The concern here is that "fringe" students may not want to take courses that they otherwise may have taken, had there

been no diploma examinations, they may need to repeat more often, or they may, as is the concern in one statement, drop out or even contemplate suicide. The suggestion is that diploma examinations could be one contributing factor to the high drop-out rate, or even suicides.

The above are potential problem areas applicable to all students, not just the non-academic students. In addition, applicable to all students is that if diploma examinations are negatively affecting stress levels and self-esteem of students, this could have negative consequences in terms of future learning and life choices (Dorrington, 1986; Goslin, 1963).

The idea that students are more "mark-hungry" and competitive, and that there is increased cheating indicates that personal integrity may not be as important as achieving well on the diploma examination.

In general, the feeling engendered through this theme echoes Eisner's (1993) comments that some of the facets of the deeper mission of schooling are being neglected. Also, a comment in Calder's (1990b) study that students were having less "fun" since diploma examinations is a reflection of this theme. The

potential for learning decreases if there is less enjoyment in it. The students in Dorrington's (1986) study expressed this view in commenting that they were worried that teachers, because of the diploma examinations would not have time to talk about "everyday" enjoyable things that they did not have to memorize.

Cluster 6 focuses on the theme that diploma examinations **Provide Objectives For Teachers**. One statement, that the exams reduce pressure from parents to award high marks, could suggest that, because the exams were reinstated as a result of the need for accountability to the public, parents believe that the exams provide valid marks; this, in a way, provides a type of "protection" for the teacher.

The statement that teaching is a little easier probably has similar underpinnings, meaning that because of diploma examinations, the educational objectives are seen as being more clearly defined and needing to be met. This is probably reflective of the statement that there is more commitment and planning when teaching a diploma examination course. Also, because the less able students are reported as being

channelled away from the diploma examination courses to a greater extent than they would be if there were no diploma examinations, it could mean that the teacher has a less diverse student population in the classroom. with less planning necessary to meet individual educational needs. Or, as indicated in the literature, students are more focused, more serious about their work, and more motivated. This would have the effect of making teaching easier.

The comment that diploma examinations have had little effect on how and what the teacher teaches, is not the usual reaction when teachers are asked for their opinions about the effects of the diploma examinations (Calder, 1990b). Sorters saw this statement as rather an enigma in terms of where it belongs; thus, it has a bridging index of 1.00.

The theme of Cluster 7, **Promote Alienation Between School And Public** is an indication of the misunderstanding of evaluation that diploma examinations promote. According to the research, the issue causing the most concern for teachers regarding diploma examinations is expressed in the statement focusing on results being misused as evaluation of

teachers, schools, administrators, and school systems. This reflects the findings of Herman and Dorr-Bremme (1983) who stated that teachers do not want to be held accountable for students grades. Neither do they feel that it is fair to compare teachers' performances on the basis of mean group results (Calder, 1990b).

Another point is that the statement referring to the Department of Education not providing enough explanation of the meaning of curriculum evaluation suggests that teachers are confused because of a lack of definition. If teachers are confused, then so must be students, parents, and administrators, among others. This confusion results in unclear expectations for the uses of diploma examinations and their results. Media "attacks" based on misused exam results could result in teacher demoralization.

Another effect of misunderstanding of evaluation is that there is not enough partnership between parents, teachers, and government. Resulting mistrust tends to alienate one from the other (CTF, 1981), and could make both teaching and learning more difficult.

The theme in cluster 8 focuses on **Increased Demoralization Of Teachers**. As mentioned, there is the

pressure on the teacher to attain a good "result". In this case the comment is that the pressure is there to attain at least the provincial average. However, as Shepard (1990) found, good results on standardized achievement tests, may not correlate with other measures of achievement. The comment that parents do not want the teacher to go beyond the testable curriculum is more pressure on the teacher to limit enrichment activities that may be relevant to students' lives.

Although teachers may be teaching in a way that society feels is important (Madaus & McDonagh, 1979), they may not be teaching in a way that is important to them. This may contribute to teachers' experiencing less enjoyment in teaching, less autonomy, increased stress, and lowered self-esteem (CTF, 1981). Shepard (1991) comments that the concern is that we will either lose or alienate the best teachers if they continue to have these feelings.

The statements in Cluster 9 focus on the theme that the exams **Promote Less Valid Evaluation**. Having diploma examinations promotes comparison of non-comparable evaluation practices, and promotes the use

of evaluation practices which have been criticized. Statements within this cluster indicate that some teachers are questioning exam quality and construction. At least one opinion is that the exams cause lower standards in education because they are less rigorous than teacher-constructed examinations. There is a questioning of the concept of "standardization" which is a reflection of the concern discussed by Lofty (1993). One statement shows a concern for the reliability and validity of exam results.

Also, comparing the school mark with the diploma mark is seen as not legitimate, possibly because the school mark is measuring a whole year's work using many different teacher evaluation strategies, whereas the diploma mark is based on one sitting for several hours using limited assessment strategies in comparison to what the teacher might use.

Spending one week "cramming" might result in a diploma examination mark which could compensate for weaker school performance. The opposite scenario may be just as likely to occur. For example, a student who worked consistently hard all year at the teacher-assigned tasks may suffer, for example, from extreme

test anxiety and not be able to concentrate at the time of writing the diploma examination. Or, the student may not perform well on the type of questions asked on the diploma examinations.

The statement relating to the integrity of the classroom and the school-based program being undermined, could relate to a sort of separation between school and exam being perpetuated.

This could be the same idea expressed in the statement that a student and teacher against exam mentality is promoted. However, this latter statement has a high bridging index, which as explained, means that it was sorted fairly often with statements in other clusters. Although it is not as conceptually close in meaning with the other statements, it can be seen as belonging with this conceptual group if one considers that the reason there is a teacher and student against mentality is because of the nature of the exam; it is decided upon by an outside agency, and is, in a manner, a test of both the student and the teacher (Dorrington, 1986; Shepard, 1990). The diploma examinations may foster a student-teacher bond, a "we against them" attitude.

The theme in Cluster 10 focuses on **Narrowing Of The Curriculum**. One of the statements suggests that teachers are "teaching to the exam". Although this statement is somewhat ambiguous, if taken to mean that teachers are teaching in a way that promotes exam success, then that focus could mean a reduction of time spent on areas of the curriculum meant to enrich student learning. Madaus and Airasian (1977) theorize that teachers are trying to cover both the learning objectives that are inherently involved with external examinations: the curriculum and test-taking strategies. This, in turn, could foster the mechanistic approach to learning, making teachers feel more like tradesmen (Madaus & Airasian, 1977; Hart, 1988). Teachers do not feel that they have the time to move away from the focus on the above mentioned learning objectives, and they cannot spend much time enriching students' learning experiences. Also, teachers feel that time taken for the actual testing affects their programs (Calder, 1990b; Anderson et al., 1990).

Cluster 11 discusses the theme **Promote Focus On Goal Rather Than Process**. For example, if a student is

able to study hard for a final external exam, and do well, and gives lesser importance to the classroom component of the course, he or she may not learn the importance of developing the consistency required for other learning situations. All of these factors serve to undermine the idea of consistent performance, classroom objectives, and the teacher mark, as well. This undermining tends to discourage appreciation of learning as a process.

Chapter VI

FINAL DISCUSSION

This chapter begins with a summary of the results of the study, and a discussion of the study's limitations. The chapter ends with educational implications and recommendations for future research.

Summary and Conclusions

The purpose of this study was to identify and organize, through concept mapping procedures, what Alberta teachers of diploma examination courses views are about the impact of the Alberta diploma examinations on the teaching-learning process. It was hoped that the results of the study would provide useful information if further investigations regarding the Alberta diploma examinations are undertaken.

Teachers of Alberta diploma examination courses across the province were asked to express their views about the impact of the diploma examinations on the teaching-learning process. They gave a wide variety of opinions - a final impact list of 89 statements was compiled. These 89 statements were sorted by 30 independent sorters into groups that had common themes. Concept mapping as outlined by Trochim (1989b) was used

to analyze the data.

Results of the study show that the themes which emerged are generally reflective of the issues discussed in the related literature. The two clusters which have the most clearly related statements, **Contribute to Negative View of Self and School**, and **Increase Demoralization of Teachers**, also have the most statements.

Other themes which emerged are: **Assist in Attainment of Educational Objectives**, **Provide Standard for Comparisons**, **Provide Well-Constructed, Common Exams**, **Instill Desirable Student Attitudes and Skills**, **Provide Objectives for Teachers**, **Promote Alienation Between School and Public**, **Promote Less Valid Evaluation**, **Promote Narrowing of Curriculum**, and **Promote Focus on Goal Rather Than Process**.

Limitations of the Study

Some of the themes may not be as clear as they could have been for several reasons. For example, several sorters reported that some statements were hard to understand, and therefore, were difficult to sort. As well, several statements might have been hard to sort because they could be considered comments rather

than effects. Some of the sorters are not directly involved with education, and that could have meant they sorted somewhat differently than the teachers, who may have had a somewhat clearer understanding of the statements as they relate to the teaching-learning process.

Educational Implications

The themes identified in this study indicate that teachers would feel better about diploma examinations if an effort were made to lessen the confusion surrounding objectives and uses of the diploma examinations. The Department of Education should clearly outline the purposes for the diploma examinations. In addition, the Department of Education should re-examine the uses that can be made of the diploma examination results. This information should be conveyed to the general public, including students and educators.

With greater understanding of the purposes of the diploma examinations, some of the more negative effects, particularly for teachers and students, could be lessened. In addition, more clearly outlined purposes and uses could result in more partnership and

trust between government, teachers, administrators, and parents.

Perhaps if teachers were made aware of students' concerns regarding the diploma examinations, they would be able to help lessen the negative student effects described by both students and teachers. For example, teachers could help to alleviate students' stress by focusing more on classroom activities and evaluation rather than on the diploma examinations, or by attempting to clarify student concerns regarding diploma examinations, possibly by having classroom discussions.

Other provinces and countries are investigating alternatives to standardized examinations based more on student accomplishments. Evaluation of any new methods of testing would seem to be in order before any type of large-scale implementation. The positive, as well as negative effects of standardized testing should be kept in mind in the improvement efforts regarding high school evaluation.

One area of concern that should be addressed is educational standards and evaluation for non-academic students.

Recommendations For Further Research

A logical outgrowth of this study would be to create a survey based on the statements used in the concept mapping whereby teachers would rate the importance or prevalence of each effect. This would assist in determining which areas might have priority for further research.

Concept mapping was an appropriate methodology for organizing the impact list statements into a framework for consideration of possible future research. It could be suitable for use in evaluating other educational programs because it allows for maximum input of information from selected sources and attempts to provide an objective way of dealing with that information. Themes that arise from the collected information could facilitate the identification of possible strengths or weaknesses of particular programs. Themes could also assist in determining areas for further investigation.

Concept mapping could be used in a number of follow-up studies to this one. It would be interesting to look at the views of the non-academic students regarding diploma examinations. Another possibility

would be to examine the role that diploma examinations play on the low high-school completion rate. Perhaps an in-depth study looking at the reasons for the demoralization of teachers could be undertaken. It might be useful to examine other causes for stress in high school students. One might also investigate other issues that affect the teaching-learning process.

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APPENDICES

Appendix A

Initial Impact List

1. Marks are better due to the above.
2. For most students they encourage hard work.
3. In some sense, teaching is a little easier as students have the dubious motivation of Damocles' sword hanging over their heads.
4. Motivator.
5. Students are motivated to learn.
6. Students are working harder.
7. Though it is a motivator, one must be careful in teaching the curriculum and helping students become better math persons instead of teaching only for the exam.
8. Diploma exams provide an excellent external motivator both for teacher and student.
9. Eng. 30 students more willing to learn to write essays.
10. Forces the teacher to keep a certain pace.
11. I, as a teacher, approach the course in a more business-like manner.
12. There is more teacher planning done and commitment done by a teacher, teaching a diploma subject.
13. Provides a focus for both student and teacher.
14. A central focus (external) is provided for the students.
15. They have provided a focus for all students in the course.
16. Provides confidence for student.
17. Students more serious knowing there is this final exam.
18. Students tend to be more serious about their work, which can be quite positive.
19. The 30 level students take the course more seriously as result of a 50% final.
20. These exams make students take school seriously.
21. Students and teachers are allies now fighting together to beat the external exam.
22. Students perceive teachers as allies in getting ready for the exam.
23. The teacher and student work together on strategies to write the diploma exam (student-teacher team approach rather than a distant

- teacher-student relationship).
24. Keeps teacher on track insofar as course content is concerned.
 25. Assures that the curriculum is followed and important concepts covered.
 26. Ensures curriculum core being met.
 27. It keeps a teacher on curriculum.
 28. Ensure common curriculum.
 29. I feel all students are being taught common topics.
 30. Standardize course content throughout all systems in province.
 31. The same core material will be covered by each classroom throughout Alberta (easier for transferring students throughout a school term.)
 32. Sets standards for students, teachers, school, and province.
 33. You know that you are teaching the same thing as everyone else, and your students will be in the same position as others in first year university.
 34. Require a common denominator for Scholarships, Entrance requirements, etc.
 35. Diploma exams blend a good cross-section of knowledge and skill to application questions which test students.
 36. Question types are well done - better than what I could make up.
 37. Certain skills are tested in depth on one examination.
 38. Diploma exams do prepare students for the writing of other exams, i.e., post secondary institutions and employment.
 39. It does prepare them for the pressures they will face at university.
 40. Functional writing and personal response assignments are good, useful.
 41. Improvement in essay skills, especially organization.
 42. Increased use of personal response writing in grades 10 and 11.
 43. A student can compensate for time lost during a bout of illness by doing well on the final examination.
 44. Students should be in class because they want to

- or need to be there.
45. They have reduced pressure from parents on teachers to award high marks.
 46. Assures fairness for final comparison or results.
 47. It is fair and is the same for all students across province.
 48. Exam tends to standardize, to some extent, the marks students receive.
 49. Provides a provincial standard mark.
 50. Provides an equalization of marking standards and expectations throughout rural/urban Alberta.
 51. Standardize 50% of evaluation throughout the province.
 52. They have established a bench mark for grading students.
 53. They provide a measuring device when comparing student performance across the province.
 54. It lets students know how they rank with other students in the province.
 55. Provides a standard by which students/parents can gauge success.
 56. Provides a standard by which teachers can evaluate teaching methods.
 57. Provides an external standard against which various schools and districts can evaluate themselves, i.e., it may help a beginning teacher. Even the marking experience helps in the discussion and establishment of a criteria for writing.
 58. The use of a common measuring instrument informs both students and teachers how they have performed.
 59. Provides a standard by which post-secondary institutions can rate applicants.
 60. Provides a standard by which scholarships, awards can be fairly awarded.
 61. Much of the test is on vocabulary, i.e., supranationalism.
 62. Exam becomes reading test.
 63. A student can get by with doing very little work during the school term, hoping that a strong performance on the Diploma Examination will give him/her a passing grade in the course.
 64. With a final exam worth 50%, there is little compulsion for some students to work hard in either English 30 or English 63. They sometimes

- feel that a bad performance during the year can be salvaged on the final exam. Part of this problem is peculiar to the English 33 exam, and the English 33 student. The exam is not particularly demanding, and is easily passed by most students. More emphasis is needed on course specific skills and materials in order to ensure that students make a reasonable effort throughout the term.
65. Students only develop their motivation at the end when faced with the diploma exam and not during the year for major unit tests.
 66. The exams have encouraged an ever-increasing number of students to be "end of the course workers." (50% of the year's work on one exam is too much.)
 67. The importance of a steady, consistent performance is undermined.
 68. A we (students and teachers) against they (Dept. of Ed. and its exam) mentality. The Dept. of Ed. is not the enemy.
 69. At present, there can be a tendency to view expectations of parents and teachers as of lesser importance than the structure of Dept. of Ed. and Dept. of Adv. Ed. Was it Rousseau who expressed concern that those farthest away from the child have the greatest say in education? There seems little of a "partnership" quality in what is done with results of Examinations, what objectives we establish, how we evaluate, etc?
 70. ANXIETY LEVEL OF STUDENTS - combined with present quotas, the level of "terror" has been rising for the last 6 yrs.
 71. More stress on teachers to achieve good (high) results.
 72. It is quite stressful for me, the teacher.
 73. Strains on collegial efforts among some teachers.
 74. More stressful trying to second guess exam questions.
 75. No time to smell the flowers! "Is this on the department?" is heard over and over again.
 76. Immense pressure on students to overachieve as they are constantly being pressured by all parties to produce the top marks. I perceive the degree of this pressure to produce a (-) result.

77. The urge to succeed places stress on both teacher and student.
78. There is considerable pressure on students when writing diploma exams (some students cannot write exams).
79. Stress placed on the student writing a 50% final. To obtain a great provincial average a school could increase the prerequisite mark, i.e., Ma 33 must have 71-65%.
80. More stress on students to achieve good (high) results.
81. More stress on students.
82. The students are "exam paranoid" and place too much emphasis on the Diploma Exam.
83. Increased stress for all concerned.
84. The days that remain after the writing of Part A are wasted; part A should be written at the end of the course, like part B.
85. Both Eng.30 and 33 are scheduled about 2 weeks before the end of semester (written exam). When students know their final marks are complete from the school and the only exam left is not curriculum based, attendance is difficult to maintain.
86. Last month of course focuses largely on getting ready for exam.
87. No real teaching in June; in Eng. 30 we are preparing for the exam as part A is written early in June. Most students stop attending after Part A or come only for practice in Part B - multiple choice.
88. But personal response should insist on reference to course literature studied (written exam - Pt. A - too remote generally from course).
89. Certain skills are not tested at all on the final (external) examination.
90. Multiple choice exam prep places emphasis on style of exam and learning the conventions of multiple choice; it would be possible to pass the M.C. w/o being able to write a sentence.
91. It encourages number-crunching, etc. In the multiple choice questions, many of the answers can be eliminated by checking them on the calculator - are we testing whether kids can find the right answer or eliminate 3 wrong answers.
92. The response to visual communications assignment

- is quite remote from actual viewing skills work done during course.
93. What are the tests testing?
 94. The multiple-choice emphasis (70%) leads to a similar emphasis in class - with an attendant decline in the amount of writing, written testing (we have to "prepare them for the multiple-choice exam").
 95. I don't think (actualllly I know) some schools don't teach any electives.
 96. I don't try many new things or ideas.
 97. I teach to the exam.
 98. I use the phrase "This is important, it will be on the diploma exam" too much; I never used to say that.
 99. Illustrative material tends to be eliminated (pressure "to cover").
 100. In general, it promotes "regression to the mean" - we all do the same things, instead of building on teacher'/students' strengths and interests.
 101. It forces teachers to "teach to the exam" - to the detriment of more meaningful approaches to learning.
 102. It takes the "fun" out of S.S. 30 - you have to be so careful to cover absolutely every section of the book because a multiple choice question might be written on it.
 103. The test 'drives' the curriculum. Instead of being able to teach them (in the 20%) other topics useful for post-secondary courses. One tends - if one even does the 20% elective - to extend the areas that will be tested. I am doubtful whether teachers even do that. The question, "Will this part be on the test?" comes up again and again from students and parents.
 104. The untestable parts of Chemistry (at least in written form) such as lab skills, work habits, etc., are neglected.
 105. There is no room to explore other topics (other than the core) because it will not be tested and the students resent the time spent on these.
 106. There's not enough time to experiment with new ideas.
 107. They have cut back on teachers' flexibility to

- teach to students - not content.
108. They have reduced the curriculum.
 109. They have reduced work being done for outstanding students who could do much more.
 110. Classroom attitudes are constantly geared to the endpoint and not the process of science - we are teaching a whole generation facts and not an appreciation of science.
 111. Contents of the examinations become the curriculum.
 112. Courses are taught towards exams leaving little room to make course interesting.
 113. Critical thinking is de-emphasized; memorization is encouraged.
 114. Decreased amount of experiences in science fairs/olympics.
 115. Decreased amount of group work (cooperative efforts).
 116. Decreased amount of laboratory based activity.
 117. Decreased amount of library work.
 118. Decreased amount of project work.
 119. Decreased enrichment activities.
 120. Decreased number of field trips.
 121. Decreased time in elective activities.
 122. Distraction from more reading, course work.
 123. Every new twist to a question that pops up on new diploma exam I feel compelled to "add to my repertoire" of class examples - I feel the exam has become my (our) focus - and not chemistry.
 124. Exam becomes the curriculum. Changes in exam design must be carried through to curriculum.
 125. Format used in the diploma exams becomes the practice for class tests.
 126. Back to # 4. I have noticed an increased unwillingness on students' parts to work through long answer questions - "if I can't get it quickly, I won't bother.
 127. Getting ready for final calls for rehearsal of "formulaic" routines for 3 different types of writing.
 128. I don't enjoy teaching 30 level as much as I used to.
 129. I don't have the flexibility to teach other interesting areas.
 130. Not testing course objective.
 131. Not that we can't, but we don't tend to go deeply

- into topics not on the exam.
132. Often only core material is covered in diploma subjects with optional material being omitted.
 133. Parental pressures: "Teach to the exam" "elevate student's school grade to provide buffer" " Do not go beyond the testable curriculum"
 134. Perhaps we should teach an appreciation of what Biology is and how it impacts our lives rather than train "young doctors" or "premed/prenursing" students?
 135. Project work decreased.
 136. Spent less time on oral work from students (presentation).
 137. Students are pre-occupied with "learning for the exam" and don't learn to appreciate learning for any other reason - curiosity, wisdom, interest, desire to understand life....
 138. Students are too goal oriented and do not seem to develop a love for/interest in the subject.
 139. Students not interested in doing extra elective, etc.
 140. Students want to be taught toward the diploma exam, they do not want to be taught the course.
 141. Teach to exams.
 142. Teacher autonomy down.
 143. Teachers might be tempted to concentrate disproportionately on those skills covered on the examination.
 144. Teaching to the exam. Particularly the last few classes where one relies on "the edge" to teach kids how to write the particular exam you think is going to be given.
 145. Tendency by teachers to teach to the exam.
 146. The corollary to #8 - students have less sense of humour, less curiosity and less willingness to take risks. But I don't know how much of that is attributable to the provincial exams or to university quotas and the 70% average.
 147. The essay component has forced a concentration on this single, narrow kind of writing (the position paper) to the exclusion of others. For example, students are not as well prepared in research papers - we don't have the time.
 148. "Like it or not" there will be a limiting of course objectives in even the best of teachers in order to "teach to the exam" (blueprint).

149. Limits flexibility in the direction the course may go, or to pursue individual interests, or to provide enrichment in a specific interest area, because of the demands of the exam. The teacher feels compelled to ensure that his students are prepared as well as can be and therefore is less inclined to modify the prescribed course work with materials that supplement or complement it.
150. More drill occurs.
151. Some students intimidated by a final departmental exam while others tend to work towards only mastering how to write the exam.
152. A tendency to stress just two kinds of writing in Eng. 30 - personal response and, until recently - the comparison/contrast essay.
153. Chemistry has rendered itself to the point where it is taught in terms of the final exam.
154. The joy of learning is lost because students feel that the only reason you learn something is to get a good exam mark.
155. There's not enough time to experiment with new ideas.
156. More desirable goals/objectives of schooling/science are lost.
157. Unnecessary pressure put on students to perform well on an exam that is worth 50% of the course.
158. Lowered self-esteem among students and sometimes, teachers.
159. Pressure on staff to encourage low end of student enrollment to drop course or not to enroll in 30 level subject in order to maintain higher class average.
160. Some students not allowed the opportunity to continue in academic programs.
161. Student autonomy down.
162. Students simply give up ... drop-outs?? suicides??
163. Many students are channelled away from 30 level courses if they cannot achieve the "provincial" average and may bring down the "school" marks.
164. Deterioration of any positive attitudes.
165. The exams have led to a lot of pressure on 50-55% students to "get out" before they get to the 30 level. Class averages seem to be far too important and student growth is never taken into

- account.
166. The exams are getting more and more technical and into the fringe areas of the course and curriculum. As a result the more general students are getting more and more frustrated.
 167. The exams have changed evaluation procedures. A lot of the exam skills are being pushed out. The types of questions asked on diploma exams are asked because of efficiency in marking. Many of these questions are not a measure of student thinking and have little relationship to the skills needed in many post-secondary programs, yet we must teach toward them. Far too much time and effort is being spent on "diploma exam alone" learning activity, however, there is no other choice since students must do well on these exams or drop out.
 168. Mark inflation. My standards are lower than they were 10 years ago. The average teacher mark assigned by me is now 4-6% higher - based on less rigorous testing and a smaller amount of material. No wonder the Math Profs. at U. of A. wonder about what we send to them!
 169. On the negative side, I understand that some boards use these standardized test results for teacher evaluation, a purpose for which they were never intended.
 170. Evaluate teachers by results.
 171. They are misused as measures of teachers, schools, administrators and school systems.
 172. Using results in an overly simplified manner to make judgments on students, teachers. It sometimes appears we live in a world at a time when expediency prevails over informed objectivity.
 173. I fear the ramifications of publication of results to a usually ill or un-informed public. I see teacher evaluation by student scores in fact if not in policy.
 174. Pressure on staff to 'measure up' by mark comparisons within schools and between districts, regardless of other variables involved.
 175. Teachers are judged by results of exam.
 176. Teachers' effectiveness judged by parents, students, administration, and colleagues on the basis of how well their students perform.

177. The mark is the be all and end-all. Not whether the student understands the material.
178. My students seem more 'mark hungry' and competitive.
179. Not all exams are of equal difficulty.
180. Some exams at times may be too difficult from other semesters or years, therefore unfair to students.
181. The difficulty level of the exams seems to vary - they seem much harder recently.
182. The standard on exams has increased (students will produce averages on the 1985 exams of 70 - 80% and on the 1989 exams of 50 - 65%).
183. Department of Ed. makes exams too difficult (low average - few A's).
184. I have students repeating the 30 level several times (They almost never used to do this).
185. Students more frequently drop my class with only a bit to go; they want to "upgrade" next year before they write the diploma exam.
186. Increased amount of testing - time taken for testing affects programs.
187. The exam becomes an "intrusion" into the course work by virtue of the fact that, in English, Part A is written unreasonably early. This past year, Part A was written on January 8th, two days after school following the Christmas break. What this meant, essentially was that our preparation for Part A had to be completed by December 22nd. Ridiculous. As it is usual to see a final exam as the culmination of a course, writing Part A as early as we do creates a less than positive learning attitude in the time period that remains.
188. Increased cheating among students.
189. It is inevitable that students and parents compare the school awarded mark with the diploma exam mark. This is often not a legitimate comparison of what is being evaluated.
190. Students, parents and, sadly, administrators, view the diploma mark in competition with the teacher mark, i.e., that ideally they should be identical. This ignores the fact that the exam is one exam out of many and that is based only on 80% of what was to be taught in the class.

191. The student who does poorly on school-based work but achieves a high mark on the examination may feel that (s)he has grounds to challenge the teacher's competence in evaluation.
192. It takes the "currency" out of Social Studies.
a) The events unfolding in E. Europe and elsewhere are very historical yet we have very little time to study them. b) The events in Canada today - Meech Lake, GST should be studied more because these kids are affected.
193. Decreased study of current topics of relevance to students' lives and futures.
194. The test has become a test of the "fringe" areas of the curriculum and less on the heart.
195. The integrity of the classroom and of the school-based program are undermined.
196. The quality of these exams is sometimes poor.
197. Exam results are seen to lack in validity and reliability.
198. I do not feel that field testing actually makes a good exam - i.e., I see student choice distribution ABCD/ 0 0 100 0 showing the item is too easy and has no discriminating power.
199. With less diversity, there become fewer alternatives from which to choose and change is less frequent.
200. STANDARDIZATION - How much is a good thing?
201. Tends to point out vividly the differences between Dept. of Ed. curriculum objectives - and some post-secondary expectations: is the Dept. of Ed. curriculum to provide for all students - or just for post-secondary bound students?
Will certain university professors, instructors ever understand the difference? Do they need PROV. EXAMS TO HELP THEM?
202. The multiple choice section is detrimental to students who do not "practise" for it. And, the process whereby we encourage students to consider more than one alternative, to examine both sides of a question, is negated by the need to reduce everything to one "right" answer. On the other hand, this type of skill is required in many post-secondary institutions, and it does reinforce careful reading and the development of a precise vocabulary.
203. Over the entire year, the provincial exam has had

- little effect on how and what I teach. However, students are more interested in knowing which literature might be useful to use on the exam. Consequently, they retain more content.
204. It places pressure on teacher to do well and have students at least attain provincial average.
 205. More time is required by the teacher to improve, change or vary his/her teaching strategies.
 206. More time is spent by the teacher analyzing the results of previous diplomas.
 207. Provides the media (particularly the print) with a platform from which they can attack - no matter the result (Dept. of Ed. provides little explanation of the meaning of curriculum evaluation).
 208. Schools could allow weak students to drop the course thereby also increasing the average.
 209. Should the school-awarded mark always equal the provincial exam mark? Is there a difference between a 2-1/2 hr. pen and paper test and a course of 5 or 10 month duration where essay, test, assignment, oral presentation, seminar, etc., are a factor?
At present, if a student achieves a 70% from the teacher, a 75% on the PROV. EXAM, the teacher may be under terrific pressure to "up" his mark. If the reverse occurs, in some jurisdictions, the teacher will not be allowed to teach at the grade level. Not enough discussion is permitted to deal with this.
 210. Some increased use of multiple choice exams, but not significantly so.
 211. Some students intimidated by a final departmental exam while others tend to work towards only mastering how to write the exam.

APPENDIX B**Revised Impact List**

1. Marks are better.
2. They encourage students to work harder.
3. Students are working harder.
4. Students retain more content.
5. Students have the dubious motivation of Damocles' sword hanging over their heads.
6. Students are motivated to learn.
7. It is a motivator.
8. Diploma exams provide an excellent external motivator for the student.
9. English 30 students more willing to learn to write essays.
10. Teaching is a little easier.
11. Forces the teacher to keep a certain pace.
12. Diploma exams provide an excellent external motivator for the teacher.
13. I, as a teacher, approach the course in a more business-like manner.
14. There is more commitment and planning when teaching a diploma exam.
15. Provides a focus for the student.
16. They have provided a focus for all students in the course.
17. An external central focus is provided for the students.
18. Provides a focus for the teacher.
19. Students are more serious knowing there is this final exam.
20. Students tend to be more serious about their work.
21. The 30-level students take the course more seriously as the result of a 50% final.
22. These exams make students take the course seriously.
23. Students and teachers are allies now fighting together to beat the external exam.
24. Students perceive teachers as allies in getting ready for the exams.
25. The teacher and student work together on strategies to write the diploma exam (student-teacher team approach rather than a distant teacher-student relationship).

26. One must be careful in teaching the curriculum.
27. Keeps teacher on track insofar as course content is concerned.
28. Assures that the curriculum is followed.
29. Assures that important concepts are covered.
30. Ensures curriculum core being met.
31. It keeps a teacher on curriculum.
32. Ensures common curriculum.
33. I feel all students are being taught common topics.
34. Course content throughout all systems in province is standardized.
35. The same core material will be covered by each classroom throughout Alberta (easier for transferring students throughout a school term).
36. You know that you are teaching the same thing as everyone else.
37. Diploma exams blend a good cross-section of knowledge and skill to application questions which test students.
38. Question types are well done - better than what I could make up.
39. Certain skills are tested in depth on one examination.
40. Diploma exams do prepare students for the writing of other exams, i.e., post-secondary institutions and employment.
41. It does prepare them for the pressures they will face at university.
42. This type of skill is required in many post-secondary institutions.
43. Functional writing and personal response assignments are good, useful.
44. Increased use of personal response writing in grades 10 and 11.
45. Improvement in essay skills, especially organization.
46. A student can compensate for time lost during a bout of illness by doing well on the final examination.
47. They have reduced pressure from parents on teachers to award high marks.
48. Reinforces careful reading.
49. Reinforces the development of a precise vocabulary.
50. Assures fairness for final comparison or results.

51. It is fair and is the same for all students across province.
52. Exam tends to standardize, to some extent, the marks students receive.
53. Sets standards for students, teachers, school, and province.
54. Provides a provincial standard mark.
55. Provides an equalization of marking standards and expectations throughout rural/urban Alberta.
56. Standardize 50% of evaluation throughout the province.
57. It lets students know how they rank with other students in the province.
58. Provides a standard by which students/parents can gauge success.
59. Provides a standard by which teachers can evaluate teaching methods.
60. Provides an external standard against which various schools and districts can evaluate themselves, i.e., It may help a beginning teacher. Even the marking experience helps in the discussion and establishment of a criteria for writing.
61. The use of a common measuring instrument informs both students and teachers how they have performed.
62. Provides a standard by which post-secondary institutions can rate applicants.
63. Require a common denominator for entrance requirements.
64. Your students will be in the same position as others in first year university.
65. Provides a standard by which scholarships, awards can be fairly awarded.
66. Require a common denominator for scholarships.
67. A student can get by with doing very little work during the school term, hoping that a strong performance on the diploma examination will give him/her a passing grade in the course.
68. Students sometimes feel that a bad performance during the year can be salvaged on the final exam.
69. Students only develop their motivation at the end when faced with diploma exam and not during the year for major unit tests.
70. The exams have encouraged an ever-increasing

number of students to be "end of the course" workers. (50% of the year's work on one exam is too much.)

71. The importance of a steady, consistent performance is undermined.
72. A we (students and teachers) against they (Dept. of Ed. and its exam) mentality. The Dept. of Ed. is not the enemy.
73. Not enough "partnership" between parents, teachers, and government in all aspects of the diploma examinations.
74. The anxiety level of students has been rising over the last six years.
75. More stressful trying to second guess exam questions.
76. No time to smell the flowers! "Is this on the department?" is heard over and over again.
77. Immense pressure on students to overachieve as they are constantly being pressured by all parties to produce the top marks.
78. The urge to succeed places stress on students.
79. There is considerable pressure on students when writing diploma exams (some students cannot write exams).
80. More stress on students to achieve good (high) results on an exam that is worth 50% of the course.
81. The students are "exam paranoid" and place too much emphasis on the diploma exam.
82. More stress on teachers to achieve good (high) results.
83. It is quite stressful for me, the teacher.
84. Strains on collegial efforts among some teachers.
85. The days that remain after the writing of Part A are wasted; Part A should be written at the end on the course, like Part B.
86. Both English 30 and 33 are scheduled about 2 weeks before the end of semester (written exam). When students know their final marks are complete from the school and the only exam left is not curriculum based, attendance is difficult to maintain.
87. No real teaching in June; in English we are preparing for the exam as Part A is written early in June. Most students stop attending after Part A or come only for practice in Part B - multiple

- choice.
88. Last month of course focuses largely on getting ready for exam.
 89. Part A is too removed from course.
 90. Certain skills are not tested.
 91. It would be possible to pass the multiple choice without being able to write a sentence.
 92. Are we testing whether kids can find the right answer or eliminate 3 wrong answers?
 93. The multiple choice section is detrimental to students who do not practise for it.
 94. The response to visual communications assignment is quite remote from actual viewing skills work done during course.
 95. What are the tests testing?
 96. Much of the test is on vocabulary, i.e. supranationalism.
 96. Exam becomes reading test.
 97. The multiple-choice emphasis leads to having to prepare them for the multiple-choice exam.
 98. I teach to the exam.
 99. I use the phrase "This is important. It will be on the diploma exam," too much; I never used to say that.
 100. It forces teachers to teach to the exam.
 101. The test 'drives' the curriculum. One tends to extend the areas that will be tested. The question "Will this part be on the test?" comes up again and again from students and parents.
 102. The untestable parts of Chemistry such as lab skills, work habits, etc., are neglected.
 103. They have cut back on teachers' flexibility to teach to students - not content.
 104. You have to be so careful to cover absolutely every section of the book because a multiple choice question might be written on it.
 105. Getting ready for final calls for rehearsal of "formulaic" routines for 3 different types of writing.
 106. Not that we can't, but we don't tend to go deeply into topics not on the exam.
 107. Teach to exams.
 108. Parental pressures: Teach to the exam.
 109. Teachers might be tempted to concentrate disproportionately on those skills covered on the examination.

110. Teaching to the exam. Particularly the last few classes where one relies on "the edge" to teach kids how to write the particular exam you think is going to be given.
111. Tendency by teachers to teach to the exam.
112. The essay component has forced a concentration on this single, narrow kind of writing to the exclusion of others. For example, students are not as well prepared in research papers - we don't have the time.
113. There will be a limiting of course objectives in even the best of teachers in order to teach to the exam.
114. More drill occurs.
115. A tendency to stress just two kinds of writing in English 30 - personal response and, until recently - the comparison/contrast essay.
116. I know some schools don't teach any electives.
117. Illustrative material tends to be eliminated.
118. There is no room to explore other topics (other than the core) because it will not be tested.
119. Students resent the time spent on topics other than the core.
119. Students not interested in doing extra electives.
120. Some students work towards only mastering how to write the exam.
121. Decreased time in elective activities.
122. Often only core material is covered in diploma subjects with optional material being omitted.
123. Parents do not want teachers to go beyond the testable curriculum.
124. I don't try many new things or ideas.
125. We all do the same things, instead of building on teachers'/students' strengths and interests.
126. They are detrimental to more meaningful approaches to learning.
127. There is not enough time to experiment with new ideas.
128. There is little room to make course interesting.
129. I don't have the flexibility to teach other interesting areas.
130. There is not enough time to experiment with new ideas.
131. It takes the "fun" out of S.S. 30.
132. I don't enjoy teaching 30 level as much as I used to.

133. They have reduced work being done for outstnading students who could do much more.
134. Decreased amount of experiences in science fairs/olympics.
135. Decreased amount of group work (cooperative efforts).
136. Decreased amount of laboratory based activity.
137. Decreased amount of library work.
138. Decreased amount of project work.
139. Decreased enrichment activities.
140. Decreased number of field trips.
141. Project work decreased.
142. Spent less time on oral work from students.
143. Limits flexibility in the direction the course may go, or to pursue individual interests, or to provide enrichment in a specific interest area, because of the demands of the exam.
144. Classroom attitudes are constantly geared to the endpoint and not the process of science - we are teaching a whole generation facts and not an appreciation of science.
145. The process whereby we encourage students to consider more than one alternative to examine both sides of a question, is negated by the need to reduce everything to one "right" answer.
146. Critical thinking is de-emphasized; memorization is encouraged.
147. Perhaps we should teach an appreciation of what biology is and how it impacts our lives rather than train "young doctors" or "premed/prenursing" students.
148. Students are pre-occupied with "learning for the exam" and don't learn to appreciate learning for any other reason - curiosity, wisdom, interest, desire to understand life...
149. Students are too goal-oriented and do not seem to develop a love for/interest in the subject.1
150. Students have less sense of humour, less curiosity, and less willingness to take risks.
151. The joy of learning is lost because students feel that the only reason you learn something is to get a good exam mark.
152. More desirable goals/objectives of education/schooling/science are lost.
153. They have reduced the curriculum.
154. Contents of the examination become the

- curriculum.
155. Every new twist to a question that pops up on new diploma exam I feel compelled to "add to my repertoire" of class examples - I feel the exam has become my (our) focus - and not chemistry.
 156. Exam becomes the curriculum. Changes in exam design must be carried through to curriculum.
 157. Format used in the diploma exams becomes the practice for class tests.
 158. I have noticed an increased unwillingness on students' parts to work through long answer questions - "if I can't get it quickly, I won't bother.
 159. Not testing course objective.
 160. More emphasis is needed on course specific skills.
 161. Teacher autonomy down.
 162. Student autonomy down.
 163. Lowered self-esteem among students.
 164. Pressure on staff to encourage low end of student enrollment to drop course or not to enroll in 30-level subject in order to maintain higher class average.
 165. Some students not allowed the opportunity to continue in academic programs.
 166. Many students are channelled away from 30-level courses if they cannot achieve the "provincial" average and may bring down the "school" marks.
 167. The exams have led to a lot of pressure on 50-55% students to "get out" before they get to the 30-level. Class averages seems to be far too important and student growth is never taken into account.
 168. Students must do well on these exams or drop out.
 169. Students simply give up ... drop-outs?? suicides??
 170. Deterioration of any positive attitudes.
 171. The exams are getting more and more technical and into the fringe areas of the course and curriculum. As a result, the more general students are getting more and more frustrated.
 172. The test has become a test of the "fringe" areas of the curriculum and less on the heart.
 173. Tends to focus on standards of achievement for the academic student rather than the non-academic.

174. The types of questions asked on diploma exams are asked because of efficiency in marking.
175. Mark inflation. My standards are lower than they were 10 years ago because of less rigorous testing and a smaller amount of material.
176. Some boards use these standardized test results for teacher evaluation, a purpose for which they were never intended.
177. Evaluate teachers by results.
178. They are misused as measures of teachers, schools, administrators and school systems.
179. Using results in an overly simplified manner to make judgements on students, teachers. It sometimes appears we live in a world at a time when expediency prevails over informed objectivity.
180. I fear ramifications of publication of results to a usually ill or uninformed public. I see teacher evaluation by student scores in fact if not in policy.
181. Teachers are judged by results of exam.
182. Teachers' effectiveness judged by parents, students, administration, and colleagues on the basis of how well their students perform.
183. The mark is the be all and end all. Not whether the student understands the material.
184. My students seem more 'mark hungry' and competitive.
185. Not all exams are of equal difficulty.
186. Some exams at times may be too difficult from other semesters or years, therefore unfair to students.
187. The difficulty level of the exams seems to vary - they seem much harder recently.
188. The exams are too difficult.
189. I have students repeating the 30-level several times (They almost never used to do this).
190. Students more frequently drop my class with only a bit to go; they want to "upgrade" next year before they write the diploma exam.
191. Increased amount of testing - time taken for testing affects programs.
192. The exam becomes an "intrusion" into the course work by virtue of the fact that, in English, Part A is written unreasonably early.
193. Increased cheating among students.

194. It is inevitable that students and parents compare the school awarded mark with the diploma exam mark. This is often not a legitimate comparison of what is being evaluated.
195. Students, parents, and, sadly, administrators, view the diploma mark in competition with the teacher mark, i.e., that ideally they should be identical. This ignores the fact that the exam is one exam out of many and that it is based only on 80% of what was to be taught in the class.
196. The student who does poorly on school-based work but achieves a high mark on the examination may feel that (s)he has grounds to challenge the teacher's competence in evaluation.
197. Parents pressure teachers to elevate students school grades to provide buffer.
198. It takes the currency out of Social Studies.
199. Decreased study of current topics of relevance to students' lives and futures.
200. The integrity of the classroom and of the school-based program are undermined.
201. The quality of these exams is sometimes poor.
202. Exams are seen to lack in validity and reliability.
203. I do not feel that field testing actually makes a good exam.
204. How much standardization is a good thing?
205. The provincial exam has had little effect on how and what I teach.
206. It places pressure on teacher to do well and have students at least attain provincial average.
207. More time is required by the teacher to improve, change or vary his/her teaching strategies.
208. More time is spent by the teacher analyzing the results of previous diplomas.

Appendix C

Revised Impact List

1. Marks are better.
2. They encourage students to work harder.
3. External motivator for the student.
4. Students retain more content.
5. Teaching is a little easier.
6. External motivator for the teacher.
7. There is more committment and planning when teaching a diploma exam.
8. I, as a teacher, approach the course in a more business-like manner.
9. Provide a focus for the teacher.
10. Provide a focus for the student.
11. Students are more serious about their work.
12. Students and teachers are allies now fighting together to beat the external exam.
13. Assures that important concepts are covered.
14. Ensures common curriculum in the province.
15. Certain skills are tested in depth on one examination.
16. Diploma exams blend a good cross-section of knowledge and skill to application questions.
17. Questions types are well done - better than what I could make up.
18. Prepare students for the writing of other exams.
19. Prepare students for the pressures of university.
20. Development of useful writing skills.
21. Student can compensate for time lost during illness by doing well on the final examination.
22. Reduced pressure from parents on teachers to award high marks.
23. Reinforces careful reading.
24. Reinforces the development of a precise vocabulary.
25. Assures fairness for final comparison or results for all students.
26. Standardize 50% of evaluation throughout the province.
27. Provides a standard by which students/parents can gauge success.
28. Provides a standard by which teachers can evaluate teaching methods.
29. Provides an external standard against which

- various schools and districts can evaluate themselves.
30. Provides a standard for post-secondary institutions to rate applicants.
 31. Provides a standard for making awards.
 32. Students at same position as others in first year university.
 33. Students sometimes feel that a bad performance during the year can be salvaged on the final exam.
 34. The importance of a consistent performance is undermined.
 35. Promotes a student and teacher against exam mentality.
 36. Increased stress for students.
 37. Not enough "partnership between parents, teachers, and government in all aspects of the diploma examinations.
 38. Increased stress for teacher.
 39. Strains on collegial efforts among some teachers.
 40. Students consider class time after Part A of the exam in English 30 and 33 unimportant.
 41. It would be possible to pass the multiple choice without being able to write a sentence.
 42. Are we testing whether kids can find the right answer or eliminate three wrong answers?
 43. Students not interested in doing extra electives etc.
 44. Some students work towards only mastering how to write the exam.
 45. Parents do not want teachers to go beyond the testable curriculum.
 46. Tendency by teachers to teach to the exam.
 47. Decreased time in elective activities.
 48. We all do the same things, instead of building on teachers' strengths and interests.
 49. Not enough time to experiment with new ideas.
 50. Little room to make course interesting.
 51. Discourages teacher autonomy.
 52. I don't enjoy teaching 30 level subjects as much as I used to.
 53. Discourages enrichment activities.
 54. Attitudes geared to the endpoint and not the process of learning.
 55. Critical thinking is de-emphasized; memorization is encouraged.
 56. Discourages appreciation of learning.

57. Students have less sense of humour, less curiosity, and less willingness to take risks.
58. Changes in exam design tend to be carried through to curriculum and class tests.
59. Students less willing to work through long answer questions.
60. Student autonomy down.
61. Lowered self-esteem among students.
62. To maintain higher averages, lower achieving students channelled to non-academic routes.
63. The exams are getting more and more technical and into the fringe areas of the course and curriculum, frustrating the more general students.
64. Students give up ... drop outs?? Suicides??
65. Tends to focus on standards of achievement for the academic student rather than the non-academic.
66. The types of questions asked on diploma exams are asked because of efficiency in marking.
67. Mark inflation. My standards are lower than they were 10 years ago because of less rigorous testing and a smaller amount of material.
68. They are misused as measures of teachers, schools, administrators and school systems.
69. Students seem more 'mark-hungry' and competitive.
70. Difficulty level of exams seems to vary.
71. I have students repeating the 30 level several times (They almost never used to do this).
72. Students more frequently drop my class with only a bit to go; they want to "upgrade" next year before they write the diploma exam.
73. Increased amount of testing - time taken for testing affects programs.
74. Increased cheating among students.
75. Unfair comparisons between teacher mark and exam mark.
76. The student who does poorly on school-based work but achieves a high mark on the examination may challenge the teacher's competence in evaluation.
77. Parents pressure teachers to elevate students school grades to provide buffer.
78. Decreased study of current topics of relevance to students' lives and futures.
79. The integrity of the classroom and of the school-based program are undermined.
80. The quality of these exams is sometimes poor.
81. Exam results are seen to lack in validity and

- reliability.
82. I do not feel that field testing actually makes a good exam.
 83. How much standardization is a good thing?
 84. The provincial exam has had little effect on how and what I teach.
 85. It places pressure on teacher to do well and have students at least attain provincial average.
 86. More time is required for the teacher to improve.
 87. More time is spent by the teacher analyzing the results of previous diplomas.
 88. Provide media with platform for attack - no matter the result.
 89. Dept.of Ed. provides little explanation of meaning of curriculum evaluation
 90. Lowered self-esteem among teachers

Appendix D

Final Impact List

1. marks are better
2. provide standard for teacher to evaluate teaching methods
3. provide a focus for teacher
4. types of questions asked because of efficiency in marking
5. tendency to "teach to exam"
6. has had little effect on how and what I teach
7. encourage students to work harder
8. provide external standard for self-evaluation of schools and districts
9. decreased time in elective activities
10. mark inflation and lower standards due to less rigorous testing and less material
11. pressure on teacher to have students attain at least provincial average
12. external motivator for students
13. provide a standard for post-secondary institutions to rate applicants
14. teachers do same things, instead of building on their strengths, weaknesses
15. misused as evaluation of teachers, schools, administrators, and school systems
16. more time required for teacher to improve/change teaching strategies
17. students retain more content
18. provide standard for making awards
19. not enough time to experiment with new ideas
20. students seem more "mark hunger" and competitive
21. provide media with platform for attack - no matter the result
22. external motivator for teacher
23. students at same position as others in first year university
24. little room to make course interesting
25. difficulty level of exams seems to vary - unfair to students
26. Dept. of Ed. provides little explanation of meaning of curriculum evaluation.
27. provide a focus for student
28. students sometimes feel a bad performance during year can be salvaged on final

29. discourage teacher autonomy
30. students now repeating the 30 level several times
31. students more serious about their work
32. importance of consistent performance undermined
33. less enjoyment teaching 30 level subjects
34. students more frequently drop course near end to upgrade next year
35. assure important concepts covered
36. promote student and teacher against exam mentality
37. lowered self-esteem among teachers
38. time taken for increased testing affects programs
39. ensure common curriculum in province
40. increased stress for students
41. attitudes geared to endpoint and not to process of learning
42. certain skills tested in depth
43. not enough "partnership" between parents, teachers, and government
44. discourage enrichment activities
45. increased cheating among students
46. good blend of knowledge and skill required for application questions
47. increased stress for teacher
48. critical thinking de-emphasized; memorization encouraged
49. comparison of school mark with teacher mark often not legitimate
50. question types well done - better than what teacher could make
51. strain on collegial efforts among some teachers
52. discourage appreciation of learning
53. student with lower school mark may challenge teacher's evaluation competence
54. prepare students for writing other exams
55. students consider class time after Part A of English exams unimportant
56. students have less sense of humor, less curiosity, less willingness to take risks
57. parents pressure teachers to elevate students grades as buffer
58. prepare students for pressure of university
59. possible to pass multiple choice without being able to write a sentence
60. exam design carried through to curriculum and class tests

61. decreased study of current topics relevant to students' lives and futures
62. development of useful writing skills
63. testing ability to find right answer or eliminate three wrong answers
64. students less willing to work through long answer questions
65. integrity of classroom and school-based program undermined
66. student can compensate for time lost during illness by doing well on final
67. students not interested in doing extra electives
68. student autonomy down
69. exam quality sometimes poor
70. reduced pressured from parents to award high marks
71. some students work towards only mastering how to write exam
72. lowered self-esteem among students
73. exam results seen to lack in validity and reliability
74. field testing does not make a good exam
75. reinforce careful reading
76. parents do not want teacher to go beyond testable curriculum
77. assure fairness for final comparison of students' results
78. lower achieving students channelled to non-academic routes to maintain higher averages
79. standardize 50% of evaluation throughout province
80. provide standard for parents/students to gauge success
81. exams getting more technical, into fringe areas, frustrating general students
82. students give up ... drop outs? suicides?
83. does curriculum provide for all students - or just those post-secondary bound?
84. how much standardization is good?
85. more commitment and planning when teaching a diploma course
86. reinforce development of a precise vocabulary
87. teaching of course in more business-like manner
88. teaching is a little easier
89. teachers spend more time analyzing previous diploma exams

Appendix E

Groupings sheet for Impact of Diploma Examinations Theme Sort

Directions: The statements on the cards are teachers' views about the impact of the Alberta diploma examinations. You are asked to read through the set of cards and sort them into piles in a way that makes sense to you. Place similar statements together into the same pile (you are grouping for similarity, not prioritizing). You may have as many piles as you wish (except only one or eighty-nine). If you believe that a statement is unrelated to all of the others, you can place it alone in its own pile. There are no right or wrong groupings. Then record the number of each statement in each pile.

i.e. Pile #6 - 7, 14, 54, 69, 78, 82 (statement #)

Pile

- #1 - _____
- #2 - _____
- #3 - _____
- #4 - _____
- #5 - _____
- #6 - _____
- #7 - _____
- #8 - _____
- #9 - _____
- #10 - _____
- #11 - _____
- #12 - _____
- #13 - _____
- #14 - _____
- #15 - _____

Please use the back of this sheet for more pile numbers if necessary. Thank you for your time and effort.

Appendix F

Cluster Solution For 3 Concept Map

113

Impact Statement Numbers, Names and Bridging Values

Cluster 1

- 1. marks are better (0.34)
- 62. development of useful writing skills (0.32)
- 75. reinforce careful reading (0.33)
- 35. assure important concepts covered (0.49)
- 80. provide standard for parents/students to gauge success (0.65)
- 46. good blend of knowledge and skill required for applicat... (0.38)
- 77. assure fairness for final comparison of students' resul... (0.46)
- 86. reinforce development of a precise vocabulary (0.45)
- 8. provide external standard for self-evaluation of school... (0.57)
- 13. provide a standard for post-secondary institutions to r... (0.50)
- 18. provide standard for making awards (0.45)
- 39. ensure common curriculum in province (0.47)
- 42. certain skills tested in depth (0.59)
- 60. exam design carried through to curriculum and class tes... (0.71)
- 50. question types well done - better than what teacher cou... (0.57)
- 79. standardize 50% of evaluation throughout province (0.64)
- 7. encourage students to work harder (0.30)
- 31. students more serious about their work (0.26)
- 27. provide a focus for student (0.27)
- 12. external motivator for students (0.35)
- 17. students retain more content (0.37)
- 23. students at same position as others in first year unive... (0.52)
- 66. student can compensate for time lost during illness by ... (0.49)
- 54. prepare students for writing other exams (0.37)
- 58. prepare students for pressure of university (0.40)

Cluster Average = 0.45

Cluster 2

- 20. students seem more "mark hungry" and competitive (0.38)
- 28. students sometime feel a bad performance during year ca... (0.51)
- 78. lower achieving students channelled to non-academic rou... (0.61)
- 25. difficulty level of exams seems to vary - unfair to stu... (0.39)
- 55. students consider class time after Part A of English ex... (0.26)
- 67. students not interested in doing extra electives (0.25)
- 81. exams getting more technical, into fringe areas, frustr... (0.22)
- 56. students have less sense of humor, less curiosity, less... (0.25)
- 64. students less willing to work through long answer quest... (0.18)
- 71. some students work towards only mastering how to write ... (0.33)
- 30. students now repeating the 30 level several times (0.12)
- 40. increased stress for students (0.08)
- 34. students more frequently drop course near end to upgrad... (0.07)
- 68. student autonomy down (0.06)

- 82. students give up ... drop outs? suicides? (0.15)
- 45. increased cheating among students (0.02)
- 72. lowered self-esteem among students (0.00)

Cluster Average = 0.23

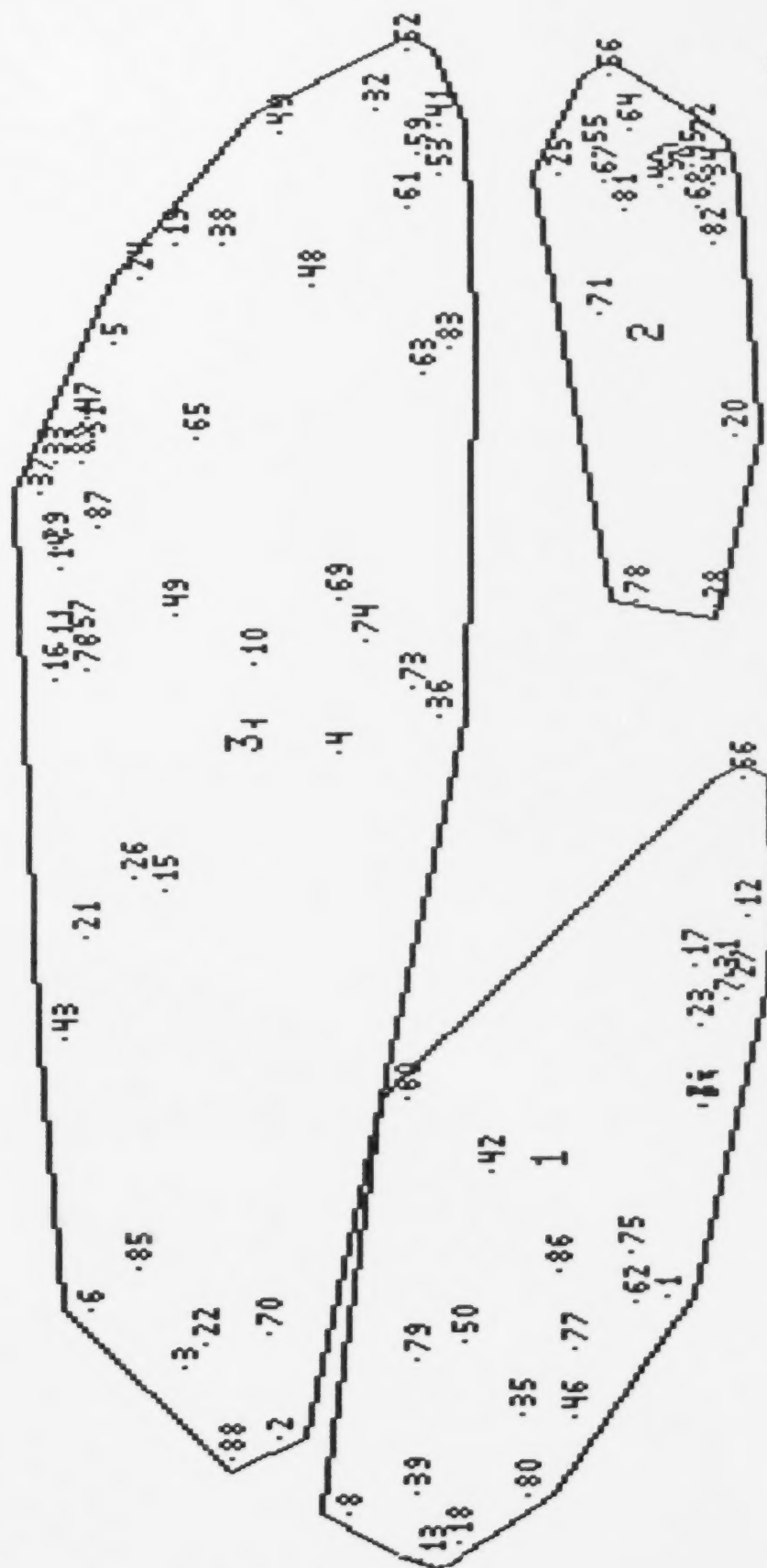
Cluster 3

- 2. provide standard for teachers to evaluate teaching meth... (0.60)
- 88. teaching is a little easier (0.70)
- 70. reduced pressure from parents to award high marks (0.76)
- 3. provide a focus for teacher (0.66)
- 22. external motivator for teacher (0.71)
- 6. has had little effect on how and what I teach (1.00)
- 85. more committment and planning when teaching a diploma c... (0.76)
- 15. misused as evaluation of teachers, schools, administrat... (0.51)
- 26. Dept. of Ed. provides little explanation of meaning of ... (0.54)
- 21. provide media with platform for attack - no matter the ... (0.59)
- 43. not enough "partnership" between parents, teachers, and... (0.67)
- 11. pressure on teacher to have students attain at least pr... (0.32)
- 16. more time required for teacher to improve/change teachi... (0.41)
- 57. parents pressure teachers to elevate students' grades a... (0.30)
- 76. parents do not want teacher to go beyond testable curri... (0.40)
- 14. teachers do same things, instead of building on their s... (0.21)
- 29. discourage teacher autonomy (0.16)
- 87. teaching of course in more business-like manner (0.37)
- 33. less enjoyment teaching 30 level subjects (0.13)
- 37. lowered self-esteem among teachers (0.13)
- 47. increased stress for teacher (0.15)
- 51. strain on collegial efforts among some teachers (0.13)
- 89. teachers spend more time analyzing previous diploma exa... (0.26)
- 4. types of questions asked because of efficiency in marki... (0.45)
- 69. exam quality sometimes poor (0.28)
- 74. field testing does not make a good exam (0.30)
- 36. promote student and teacher against exam mentality (0.73)
- 73. exam results seen to lack in validity and reliability (0.42)
- 10. mark inflation and lower standards due to less rigorous... (0.43)
- 84. how much standardization is a good thing? (0.56)
- 49. comparison of school mark with teacher mark often not l... (0.36)
- 65. integrity of classroom and school-based program undermi... (0.43)
- 5. tendency to "teach to exam" (0.39)
- 19. not enough time to experiment with new ideas (0.38)
- 24. little room to make course interesting (0.30)
- 9. decreased time in elective activities (0.53)
- 44. discourage enrichment activities (0.45)
- 38. time taken for increased testing affects programs (0.42)
- 48. critical thinking de-emphasized; memorization encourage... (0.47)
- 32. importance of consistent performance undermined (0.62)

- 52. discourage appreciation of learning (0.49)
- 41. attitudes geared to endpoint and not to process of lear... (0.55)
- 53. student with lower school mark may challenge teacher's ... (0.70)
- 59. possible to pass multiple choice without being able to ... (0.43)
- 61. decreased study of current topics relevant to students'... (0.49)
- 63. testing ability to find right answer or eliminate three... (0.45)
- 83. does curriculum provide for all students - or just thos... (0.59)

Cluster Average = 0.46

3 Concept Map



Cluster Solution For 17 Concept Map

Impact Statement Numbers, Names, and Bridging Values

Cluster 1

- 1. marks are better (0.34)
- 62. development of useful writing skills (0.32)
- 75. reinforce careful reading (0.33)

Cluster Average = 0.33

Cluster 2

- 35. assure important concepts covered (0.49)
- 80. provide standard for parents/students to gauge success (0.65)
- 46. good blend of knowledge and skill required for applicat... (0.38)
- 77. assure fairness for final comparison of students' resul... (0.46)
- 86. reinforce development of a precise vocabulary (0.45)

Cluster Average = 0.49

Cluster 3

- 8. provide external standard for self-evaluation of school... (0.57)
- 13. provide a standard for post-secondary institutions to r... (0.50)
- 18. provide standard for making awards (0.45)
- 39. ensure common curriculum in province (0.47)

Cluster Average = 0.50

Cluster 4

- 42. certain skills tested in depth (0.59)
- 60. exam design carried through to curriculum and class tes... (0.71)
- 50. question types well done - better than what teacher cou... (0.57)
- 79. standardize 50% of evaluation throughout province (0.64)

Cluster Average = 0.63

Cluster 5

- 7. encourage students to work harder (0.30)
- 31. students more serious about their work (0.26)
- 27. provide a focus for student (0.27)
- 12. external motivator for students (0.35)
- 17. students retain more content (0.37)

- 23. students at same position as others in first year unive... (0.52)
- 66. student can compensate for time lost during illness by ... (0.49)
- 54. prepare students for writing other exams (0.37)
- 58. prepare students for pressure of university (0.40)

Cluster Average = 0.37

Cluster 6

- 20. students seem more "mark hungry" and competitive (0.38)
- 28. students sometime feel a bad performance during year ca... (0.51)
- 78. lower achieving students channelled to non-academic rou... (0.61)

Cluster Average = 0.50

Cluster 7

- 25. difficulty level of exams seems to vary - unfair to stu... (0.39)
- 55. students consider class time after Part A of English ex... (0.26)
- 67. students not interested in doing extra electives (0.25)
- 81. exams getting more technical, into fringe areas, frustr... (0.22)
- 56. students have less sense of humor, less curiosity, less... (0.25)
- 64. students less willing to work through long answer quest... (0.18)
- 71. some students work towards only mastering how to write ... (0.33)

Cluster Average = 0.27

Cluster 8

- 30. students now repeating the 30 level several times (0.12)
- 40. increased stress for students (0.08)
- 34. students more frequently drop course near end to upgrad... (0.07)
- 68. student autonomy down (0.06)
- 82. students give up ... drop outs? suicides? (0.15)
- 45. increased cheating among students (0.02)
- 72. lowered self-esteem among students (0.00)

Cluster Average = 0.07

Cluster 9

- 2. provide standard for teachers to evaluate teaching meth... (0.60)
- 88. teaching is a little easier (0.70)
- 70. reduced pressure from parents to award high marks (0.76)
- 3. provide a focus for teacher (0.66)

- 22. external motivator for teacher (0.71)
- 6. has had little effect on how and what I teach (1.00)
- 85. more committment and planning when teaching a diploma c... (0.76

Cluster Average = 0.74

Cluster 10

- 15. misused as evaluation of teachers, schools, administrat... (0.51
- 26. Dept. of Ed. provides little explanation of meaning of ... (0.54
- 21. provide media with platform for attack - no matter the ... (0.59
- 43. not enough "partnership" between parents, teachers, and... (0.67

Cluster Average = 0.58

Cluster 11

- 11. pressure on teacher to have students attain at least pr... (0.32
- 16. more time required for teacher to improve/change teachi... (0.41
- 57. parents pressure teachers to elevate students' grades a... (0.30
- 76. parents do not want teacher to go beyond testable curri... (0.40

Cluster Average = 0.36

Cluster 12

- 14. teachers do same things, instead of building on their s... (0.21
- 29. discourage teacher autonomy (0.16)
- 87. teaching of course in more business-like manner (0.37)
- 33. less enjoyment teaching 30 level subjects (0.13)
- 37. lowered self-esteem among teachers (0.13)
- 47. increased stress for teacher (0.15)
- 51. strain on collegial efforts among some teachers (0.13)
- 89. teachers spend more time analyzing previous diploma exa... (0.26

Cluster Average = 0.19

Cluster 13

- 4. types of questions asked because of efficiency in marki... (0.45
- 69. exam quality sometimes poor (0.28)
- 74. field testing does not make a good exam (0.30)
- 36. promote student and teacher against exam mentality (0.73)
- 73. exam results seen to lack in validity and reliability (0.42)

Cluster Average = 0.44

Cluster 14

- 10. mark inflation and lower standards due to less rigorous... (0.43
- 84. how much standardization is a good thing? (0.56)
- 49. comparison of school mark with teacher mark often not l... (0.36
- 65. integrity of classroom and school-based program undermi... (0.43

Cluster Average = 0.45

Cluster 15

- 5. tendency to "teach to exam" (0.39)
- 19. not enough time to experiment with new ideas (0.38)
- 24. little room to make course interesting (0.30)

Cluster Average = 0.36

Cluster 16

- 9. decreased time in elective activities (0.53)
- 44. discourage enrichment activities (0.45)
- 38. time taken for increased testing affects programs (0.42)
- 48. critical thinking de-emphasized; memorization encourage... (0.47

Cluster Average = 0.47

Cluster 17

- 32. importance of consistent performance undermined (0.62)
- 52. discourage appreciation of learning (0.49)
- 41. attitudes geared to endpoint and not to process of lear... (0.55
- 53. student with lower school mark may challenge teacher's ... (0.70
- 59. possible to pass multiple choice without being able to ... (0.43
- 61. decreased study of current topics relevant to students'... (0.49
- 63. testing ability to find right answer or eliminate three... (0.45
- 83. does curriculum provide for all students - or just thos... (0.59

Cluster Average = 0.54



Appendix H

Cluster Solution For 11 Concept Map

122

Impact Statement Numbers, Names, and Bridging Values

Cluster 1

- 1. marks are better (0.34)
- 62. development of useful writing skills (0.32)
- 75. reinforce careful reading (0.33)
- 35. assure important concepts covered (0.49)
- 80. provide standard for parents/students to gauge success (0.65)
- 46. good blend of knowledge and skill required for applicat... (0.38)
- 77. assure fairness for final comparison of students' resul... (0.46)
- 86. reinforce development of a precise vocabulary (0.45)

Cluster Average = 0.43

Cluster 2

- 8. provide external standard for self-evaluation of school... (0.57)
- 13. provide a standard for post-secondary institutions to r... (0.50)
- 18. provide standard for making awards (0.45)
- 39. ensure common curriculum in province (0.47)

Cluster Average = 0.50

Cluster 3

- 42. certain skills tested in depth (0.59)
- 60. exam design carried through to curriculum and class tes... (0.71)
- 50. question types well done - better than what teacher cou... (0.57)
- 79. standardize 50% of evaluation throughout province (0.64)

Cluster Average = 0.63

Cluster 4

- 7. encourage students to work harder (0.30)
- 31. students more serious about their work (0.26)
- 27. provide a focus for student (0.27)
- 12. external motivator for students (0.35)
- 17. students retain more content (0.37)
- 23. students at same position as others in first year unive... (0.52)
- 66. student can compensate for time lost during illness by ... (0.49)
- 54. prepare students for writing other exams (0.37)
- 58. prepare students for pressure of university (0.40)

Cluster Average = 0.37

Cluster 5

- 20. students seem more "mark hungry" and competitive (0.38)
- 28. students sometime feel a bad performance during year ca... (0.51)
- 78. lower achieving students channelled to non-academic rou... (0.61)
- 25. difficulty level of exams seems to vary - unfair to stu... (0.39)
- 55. students consider class time after Part A of English ex... (0.26)
- 67. students not interested in doing extra electives (0.25)
- 81. exams getting more technical, into fringe areas, frustr... (0.22)
- 56. students have less sense of humor, less curiosity, less... (0.25)
- 64. students less willing to work through long answer quest... (0.18)
- 71. some students work towards only mastering how to write ... (0.33)
- 30. students now repeating the 30 level several times (0.12)
- 40. increased stress for students (0.08)
- 34. students more frequently drop course near end to upgrad... (0.07)
- 68. student autonomy down (0.06)
- 82. students give up ... drop outs? suicides? (0.15)
- 45. increased cheating among students (0.02)
- 72. lowered self-esteem among students (0.00)

Cluster Average = 0.23

Cluster 6

- 2. provide standard for teachers to evaluate teaching meth... (0.60)
- 88. teaching is a little easier (0.70)
- 70. reduced pressure from parents to award high marks (0.76)
- 3. provide a focus for teacher (0.66)
- 22. external motivator for teacher (0.71)
- 6. has had little effect on how and what I teach (1.00)
- 85. more committment and planning when teaching a diploma c... (0.76)

Cluster Average = 0.74

Cluster 7

- 15. misused as evaluation of teachers, schools, administrat... (0.51)
- 26. Dept. of Ed. provides little explanation of meaning of ... (0.54)
- 21. provide media with platform for attack - no matter the ... (0.59)
- 43. not enough "partnership" between parents, teachers, and... (0.67)

Cluster Average = 0.58

Cluster 8

- 11. pressure on teacher to have students attain at least pr... (0.32)
- 16. more time required for teacher to improve/change teachi... (0.41)
- 57. parents pressure teachers to elevate students' grades a... (0.30)
- 76. parents do not want teacher to go beyond testable curri... (0.40)
- 14. teachers do same things, instead of building on their s... (0.21)
- 29. discourage teacher autonomy (0.16)
- 87. teaching of course in more business-like manner (0.37)
- 33. less enjoyment teaching 30 level subjects (0.13)
- 37. lowered self-esteem among teachers (0.13)
- 47. increased stress for teacher (0.15)
- 51. strain on collegial efforts among some teachers (0.13)
- 89. teachers spend more time analyzing previous diploma exa... (0.26)

Cluster Average = 0.25

Cluster 9

- 4. types of questions asked because of efficiency in marki... (0.45)
- 69. exam quality sometimes poor (0.28)
- 74. field testing does not make a good exam (0.30)
- 36. promote student and teacher against exam mentality (0.73)
- 73. exam results seen to lack in validity and reliability (0.42)
- 10. mark inflation and lower standards due to less rigorous... (0.43)
- 84. how much standardization is a good thing? (0.56)
- 49. comparison of school mark with teacher mark often not l... (0.36)
- 65. integrity of classroom and school-based program undermi... (0.43)

Cluster Average = 0.44

Cluster 10

- 5. tendency to "teach to exam" (0.39)
- 19. not enough time to experiment with new ideas (0.38)
- 24. little room to make course interesting (0.30)
- 9. decreased time in elective activities (0.53)
- 44. discourage enrichment activities (0.45)
- 38. time taken for increased testing affects programs (0.42)
- 48. critical thinking de-emphasized; memorization encourage... (0.47)

Cluster Average = 0.42

Cluster 11

- 32. importance of consistent performance undermined (0.62)
- 52. discourage appreciation of learning (0.49)
- 41. attitudes geared to endpoint and not to process of lear... (0.55)
- 53. student with lower school mark may challenge teacher's ... (0.70)
- 59. possible to pass multiple choice without being able to ... (0.43)
- 61. decreased study of current topics relevant to students'... (0.49)
- 63. testing ability to find right answer or eliminate three... (0.45)
- 83. does curriculum provide for all students - or just thos... (0.59)

Cluster Average = 0.54

11 Concept Map

